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JUNE 13, 1966

RAILWAY AGE WEEKLY

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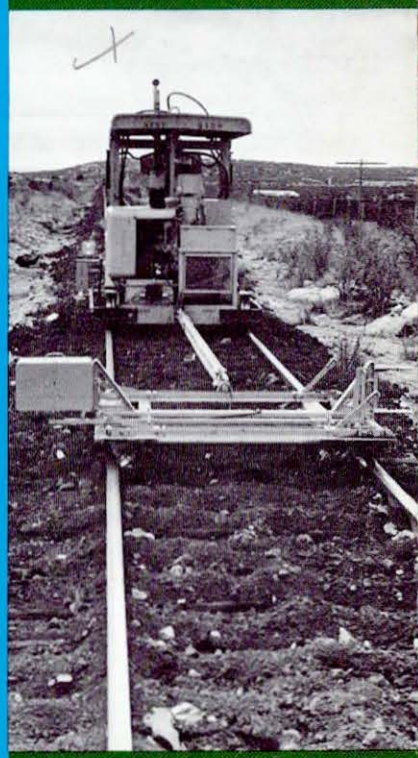

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WRECKED BY DERAILMENT, BRIDGE IS REBUILT-FAST
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MULTIPLY ITS WHEEL AND AXLE SETS BY 2

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THE FIRST HOPPER CAR WITH A 7.1 TO 1 GROSS-TO-TARE WEIGHT

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To be sure of trouble-free bearing performance on the new "100", the Southern specified Timken® "AP" bearings for its eight special 2-wheel trucks. The bearings are Class F. They will give the "100" a head start without delays due to hot boxes and persistent maintenance problems.

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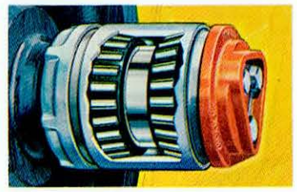

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Circle 3 on reader service card

RAILWAY AGE

June 13, 1966 • Vol. 160, No. 23

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Editorial and Executive Offices
New York, N.Y. 10007, 30 Church St.
Western Editorial Offices
Chicago, Ill. 60604, 14 E. Jackson Blvd.

ROBERT G. LEWIS: Publisher
LUTHER S. MILLER: Editor
JOHN D. MITROS: Western Editor

Managing Editor: Fred C. Miles
Traffic-Transportation: Gardner C. Hudson
News Editor: Edward F. Donlon
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Mechanical:
C. L. Combes F. N. Houser
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Librarian: Edith C. Stone
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Chicago
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Mechanical: Norman E. Gillespie
Engineering:
M. H. Dick R. E. Dove
Signaling & Communications:
Robert W. McKnight
Editorial Assistant: Wanda Brown

Washington, D.C. 20004,
National Press Bldg.
Washington Editor: Walter J. Taft

London, W.C. 2, England, 4, Talbot House; 98 St. Martin's Lane
International Editors:
Geoffrey Wilson John Levett
GEORGE DUSENBURY: Editorial Director

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"Never marry a Humble Railroad Man."

He'll stand *anybody* up at a time like this. On Sunday morning at 10 o'clock, a railroad called for two tankcars of DIOL® RD 80 diesel lubricating oil — for same-day delivery.

The order should have been placed three weeks before. Now the purchasing agent was in trouble.

But our man understood, because he *started* in railroad shops, like most Humble railroad men. So he postponed all other plans and quietly set about mobilizing the resources of Humble to keep the locomotives running.

Humble railroad representatives may be a little late to church sometimes. But the Scriptures cover it . . . with a parable about pulling the ox out of the ditch.

Call us *any* time you need help.

HUMBLE OIL & REFINING COMPANY . . . THE PEOPLE WHO "PUT A TIGER IN YOUR TANK!"

ESSO

SHORT AND SIGNIFICANT

C&NW, Milwaukee file merger application

As expected, Chicago & North Western and the Milwaukee Road on June 6 took their case for merger to the ICC. In a joint application to the Commission, the two roads say that because they serve the same general midwestern territory and operate a large number of duplicate lines and facilities, they are "logical components of a single railroad more capable of sustaining existing marginal services, of achieving improved utilization of the nation's car fleet and of generating more adequate resources for the maintenance and replacement of its plant and equipment. The consolidated operations of the two carriers will help create a healthy rail system out of two marginal carriers." Consolidation—through which a new corporation, Chicago,, Milwaukee and North Western Transportation Company, would be formed—was approved by shareholders of both roads about a year ago. Opposition to the C&NW-Milwaukee came immediately from Soo Line. President Leonard H. Murray said his road would oppose the proposed merger and would petition the ICC to have all of North Western's merger proposals—involving Milwaukee, Rock Island and Chicago Great Western—consolidated for hearings.

●

RI adds two new piggyback services . . .

The emphasis is on transportation-cost savings to shippers, as Rock Island begins offering both Plan II½ and Plan III piggyback services applying within RI territory and in conjunction with eastern and southeastern connections. Says Frank G. Sutherland, general manager-trailer service department: "In effect, we are opening new markets for piggyback business from these areas into the 14-state midwestern region served by Rock Island. Besides getting a cheaper way to move freight greater distances at greater speeds, shippers get the added advantage of not having capital tied up in expensive transportation equipment."

●

. . . and forecasts a marriage of 'plans'

Though the new options are identified as Plans II½ and III, RI's Sutherland is looking forward to a simplification of TOFC nomenclature. His position: "The various 'plan' designations are confusing to the public, but they are necessary now with piggyback in its developing stage. No doubt in the future there will be a blending of all plans in one form or another. The time will come when railroads will be selling piggyback service—period—without the burden of the modifying plans we have today." And as for RI itself and piggyback: Revenues last year were up by 25% from 1964 levels—and the same rate-of-growth is being reported for 1966, compared to 1965.

●

AAR Mechanical Division ready for Chicago sessions

Railroad mechanical department personnel will converge on Chicago June 28-30 for the 38th annual meeting of the AAR Mechanical Division in the Grand Ballroom of the Sherman House. Seventeen committee reports will be presented in summarized form to give time for questions and discussions. A Committee on Subjects will receive and consider for discussion topics not included in committee reports. Speakers on June 28 will be J. P. Hiltz, Jr., president and general manager, Delaware & Hudson, and R. R. Manion, vice president, Operations and Maintenance Department, AAR. H. R. Longhurst, assistant director, Bureau of Railroad Safety and Service, ICC, will address the June 29 session; G. R. Schaefer, director of WABCO's Mass Transit Center will speak at the last session on Thursday morning, June 30.

MONDAY MORNING REPORT

Leadership from the P. R. and Advertising Men

Without stretching a point too awfully far, the position of a good public relations or advertising man might be likened to that of an astronaut; he's up there, just a bit ahead of the main thrust—and at the moment of lift off, he's out in front. Today, with railroads counting toward a lift into a new competitive orbit, there's a greater than ever need for P. R. and advertising men who can be "out in front"—not too far ahead, to be sure, but certainly not lagging behind, either. And that's one big reason why there's added significance to the 1966 meetings of the trade associations involved—the ad men, who wound up their sessions in Denver last week, and the public relations directors, who will meet later in June in Virginia.

New spotlights on marketing and merger

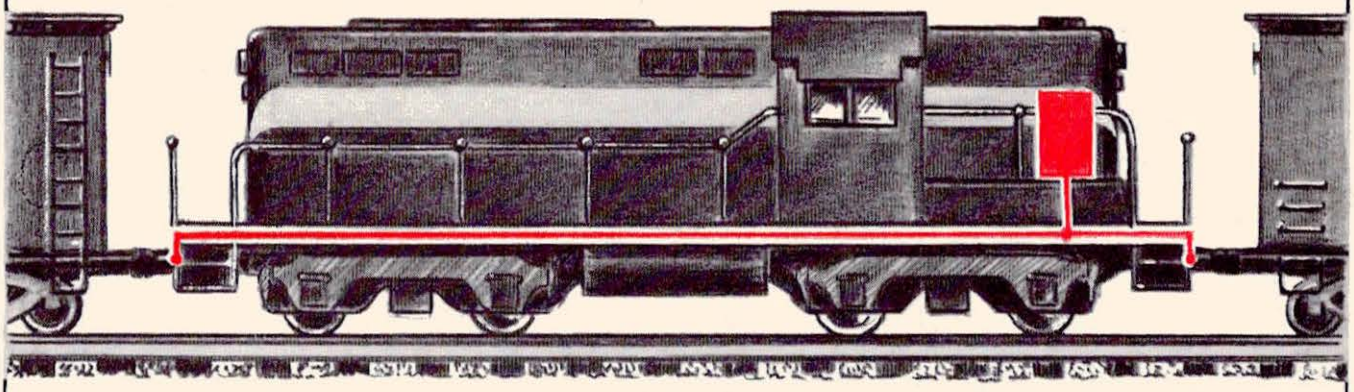
In any discussions of competitive improvements, two topics inevitably come up—marketing and merger. And both are getting a thorough going over as the P.R. men and advertising managers explore ways and means of getting greater mileage from their talents and their budgets. The Railroad Public Relations Association, for instance, will devote a full session to the various challenges which are posed by the increasing emphasis on marketing in the industry today. And RPRA discussions will be led by a panel of marketing men whose theories have the solid backing of success. The Association of Railroad Advertising Managers dug into the merger question last week—and it's a safe bet that the subject will be high on the RPRA list.

For RPRA, a view of merger ups and downs?

Actually, RPRA members may have a rare opportunity for insights into merger problems—because they'll be rubbing shoulders with the presidents of three major railroads whose experiences with merger vary rather widely. There's Burlington's Louis W. Menk, whose road was to have become a part of Great Northern Pacific & Burlington, until the ICC turned it down. There's W. T. Rice of Atlantic Coast Line, whose merger with Seaboard Air Line has been tied up in the courts, and there's Herman H. Pevler of Norfolk & Western, which, thus far, has batted 1000 on the merger score board. Finally there's the ICC's Virginia Mae Brown—and she's the Commissioner now assigned to the Rock Island merger case for direct administrative handling and expediting.

And how about merger and 'total' P.R. effort?

Also worthy of further exploration in this general area of merger is the theory advanced at last week's ARAM sessions by Peyton B. Winfree, Jr., N & W's public relations director. Winfree's point is that railroads have lagged in telling the public of their problems, their achievements and their potential—and that this has happened, in large part, because the industry has been fragmented. Mergers, he believes, are making it possible for railroads to create an improved total public relations effort. As it stands now, however, "Total public relations effort is watered down or retarded because there are simply too many entities in the group. There are too many managements whose horizons are restricted by the geographical boundaries of their small operating territories. . . . Mergers will help correct this." And as examples of what he is talking about, Winfree cites industries such as steel, aluminum, forest products and the airlines—industries with companies which are large enough and which have a sufficient identity and interest for them to do highly effective public relations and superior advertising.



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A versatile new marketing tool to expand your freight service

TMU—Train Multiple Unit-er—equipment makes any standard locomotive into an automatic locomotive.

With TMU, motive power is placed *within* a train. The head-end power is manned, the TMU locomotive operates automatically. Advantages are many.

You can offer faster service. Cars can be preblocked, which permits bypassing yards. Distributed power gives better performance in difficult grade areas, and reduces possible delays from drawgear failures.

You get better lading and equipment protection. TMU ensures smooth train handling, acts as an effective damper to slack action—even for long, heavy trains.

TMU operation increases penetration in the unit train market. A smaller train can be joined with another, thus giving lower volume shippers the advantages of unit train service.

It also increases penetration in the branch line market. Branch line trains can operate together as a single train on the main, can cut off—and pick up—at junction points, each with its own motive power. No need to divert the whole train to the branch line.

Your GRS district office can give complete information on the Train Multiple Unit-er, including prices and delivery.

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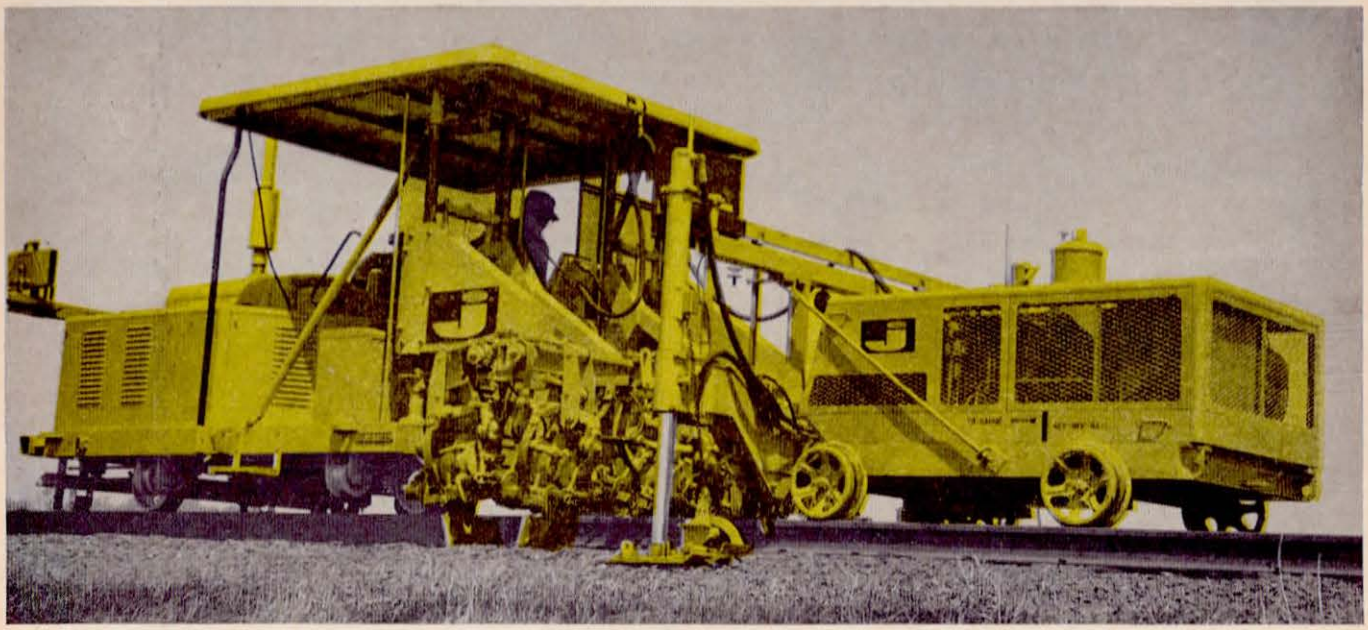

Why settle for a "halfway" machine? Go all the way for a full 6" raise.

A car load of Jackson Gandy Dancers, leaving the factory at Ludington, Michigan

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JACKSON VIBRATORS, INC.
Ludington, Michigan 49431
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RAILWAY AGE WEEKLY

JUNE 13, 1966

WEEK AT A GLANCE

Seaboard-Coast Line merger—one step closer

A three-judge federal district court in Jacksonville last week approved the long-sought-after merger of the Atlantic Coast Line and Seaboard Air Line. The merger had already been approved in 1963 by the Interstate Commerce Commission, but the matter was thrown into the courts when protests were lodged by the Department of Justice, other southeastern railways, and the brotherhoods.

Justice's argument was that the merger violated anti-trust laws, a view which was upheld subsequently by the federal district court in Jacksonville. The court, claiming that the Commission should review its findings in light of the anti-trust laws, put the merger in the deep freeze. This, however, was rescued by an appeal last year to the Supreme Court, which in turn told the lower court to review its findings.

According to the high court, the Interstate Commerce Act and not the anti-trust laws govern a determination of whether a merger is or isn't in the public interest. By turning the case back to the lower court, the Supreme Court appeared to be hinting strongly that the lower court had better find differently.

This is what has now occurred. The big question remaining is whether the other southeastern railways, the brotherhoods and Justice will try one more appeal to the Supreme Court. They have 60 days in which to file notice of intent for such an appeal.

Forecast: Good car-building days ahead

Railroads this year will accept delivery on more than 85,000 new freight cars—and by 1970 the figure should top 100,000—WABCO Chairman A. King McCord predicted last week. McCord told the Los Angeles Society of Financial Analysts that car deliveries this year will be more than double the average number of cars delivered during the 1961-1963 period, and be nearly 10% higher than the total turned out in 1965. His forecast was based on the railroads' maintaining at least a 43% share of intercity freight traffic (their present figure) and on a minimum 3.5% annual growth in the Gross National Product. His predictions allowed for increases in car sizes and the greater utilization of individual cars.

"If we, WABCO, rate a 60,000 freight car year as excellent for our railroad brake business, how do we describe a 100,000 car year? A 100,000 car year is a $75 million market for WABCO brakes and brake assemblies," McCord added. He said sales in this field should jump 8% to 10% annually in the next several years, and that the market for railroad signaling and communications equipment —sluggish in the last few years of the boom in the rail industry—had increased sharply in recent months. The turnaround in this market he attributed to "consummation of several significant mergers, growing confidence on the part of railroad management that a good rate of return in new investment is possible, and the obvious need for further cost reduction and higher speeds, with due regard for safety."

ICC tones up house-keeping procedures

Two procedures—one for case-handling, one for statistical tabulation, are designed to streamline the ICC's administrative housekeeping.

To speed up decisions in major cases, Chairman John W. Bush announced that such cases would from now on go directly to a Commissioner for handling. First to qualify are pending merger cases and REA Express' petition for removal of restrictions on its trucking service.

Bush emphasized that the new procedure will have no effect on the substantive aspect of cases.

The Commission has also issued its first statement of financial and operating statistics for Class I roads with data regrouped in newly designated districts. Regional groupings are eliminated; the former Pocahontas region becomes part of the eastern district. There will now be three districts —eastern, southern and western.

Railroad spending up 18% over last year

This year's capital expenditures of the railroads are now expected to total $2.05 billion. That would put them 18% above 1965's $1.73 billion, which was 23% above 1964's $1.41 billion. Data in the latest quarterly survey of the Department of Commerce and Securities and Exchange Commission also show that railroads will be making capital expenditures in this year's third quarter at an annual rate of $2.10 billion. That would compare with the $1.7-billion rate of 1965's third quarter. The rate for the current quarter is $1.85 billion; it was $1.55 billion in 1965's second quarter.

Rail mail in jeopardy?

Spokesmen for the railroads last week warned a House Sub-committee on Postal Operation that enactment of a bill (HR. 13925) dealing with the transportation of U.S. mail by regulated motor carrier, would not only adversely affect the mail service, but could seriously jeopardize the continuance of many passenger trains.

Such legislation, they emphasize, would not impose on truckers the same rigid obligation to provide the extensive service now required of the railroads.

Starr Thomas, general counsel for the Santa Fe, and chairman of the law committee, Railway Mail Transportation Division, AAR, said the bill, like previous similar bills, would leave motor carriers free to transport only such mail as they found desirable over routes of their own choosing. Railroads would be obliged to provide the costly and less desirable service which the truckers don't want to handle. Thomas proposed that the subcommittee consider an alternative draft of HR. 13925, placing the railroads on an equal footing with regulated motor carriers by repealing the existing statutory requirement for railroads to provide mail transportation service. H. B. Brand, director of the AAR's Railway Mail Transportation Division, said enactment of HR. 13925 would drastically cut passenger train revenues.

GUS WELTY'S LINES ON LABOR

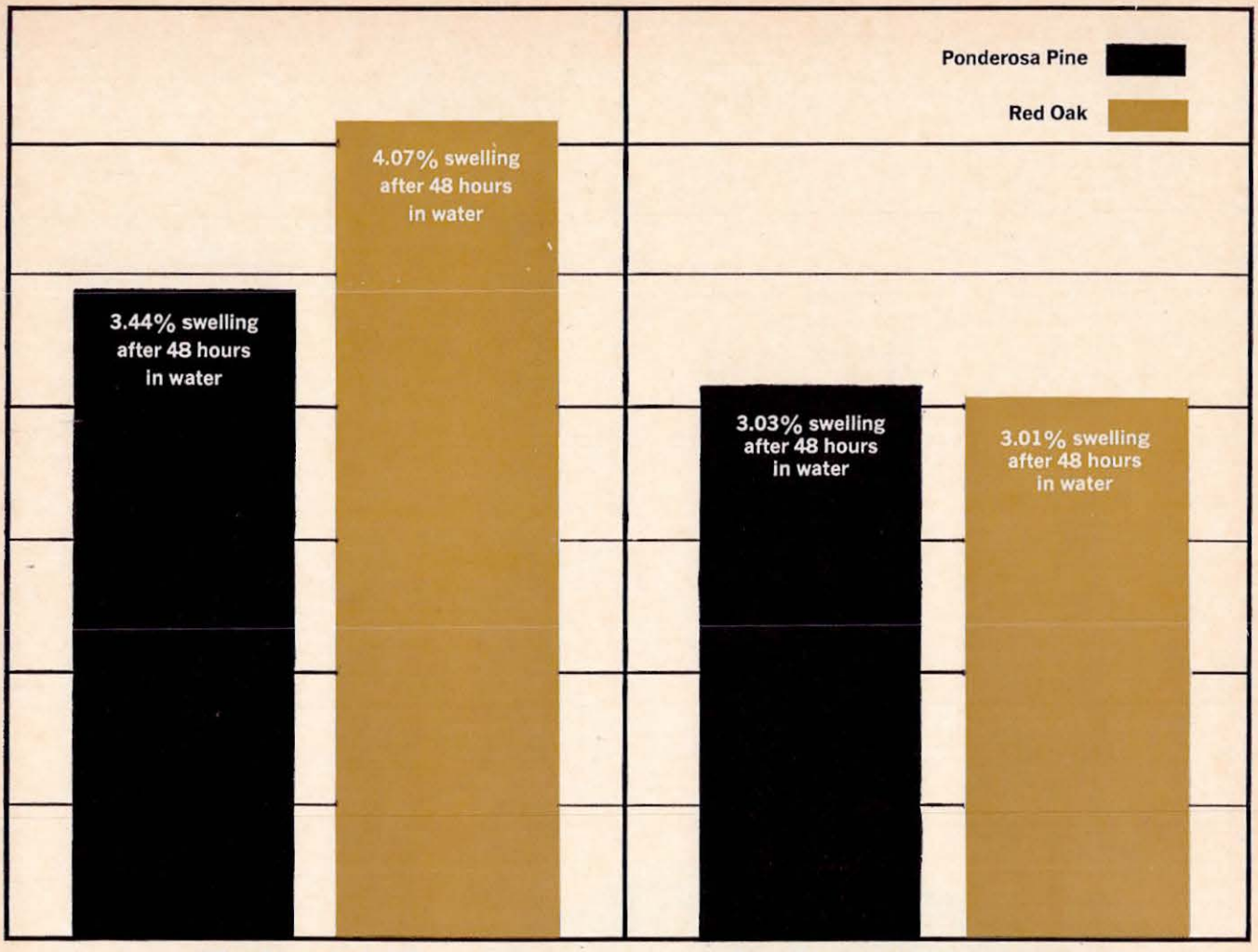
WELTY

OUT IN THE PROGRESSIVE STATE of Washington, railroads are hoping to become more progessive, too—through voter action to repeal the state's 55-year-old freight crew-consist law next November. Petitions are being circulated, and if the statewide Committee for Transportation Economy can get the required 100,000-plus signatures by a July 8 deadline, repeal will go on the ballot as Initiative 233, for voter action in the general election. Opposition, naturally, is coming mostly from the organizations, although one, the Brotherhood of Railroad Trainmen, says it is not actively fighting repeal moves at this time.

WASHINGTON'S LAW requires a six-man crew—engineer, fireman, conductor, two brakemen, flagman—on freight trains of 25 or more cars operating outside yard limits. The repeal measure provides that no law or regulatory order shall prevent a railroad from manning freight trains "in accordance with collective-bargaining agreements or any national or other settlement of train-crew size."

THE STORY ON REPEAL is a familiar one: Use of unneeded firemen and brakemen, the committee contends, is costing Washington railroads more than $4 million a year. Under repeal, men hired before Jan. 25, 1964, would be protected—and men hired since then would be offered jobs at comparable wages because there's actually a shortage of manpower for jobs that need to be filled. Finally, Washington has an added incentive for repeal—because it's now the only state in the West with such a law still on the books (repeal of Oregon's law becomes effective next Jan. 1).

MEANWHILE, WHAT'S HAPPENING among the unions? A group apparently headed mostly by BRT people is trying to get signatures on petitions for what's known as Initiative 236—Regulating Highway-Railroad Crossings. The publicized aim is safety, through elimination of most if not all crossings, with provision for installation of signals at those which are allowed to remain—and the total cost of all such projects would be paid by the railroads. Total estimated cost of this proposed raid on railroad treasuries? About $500 million. To even the casual observer, the proposal has to seem retaliatory—though this is denied by the BRT—and the people of Washington might well question the attack on their common sense that the magnitude and execution of the plan implies. It makes a fellow wonder, sometimes, just what kind of rich industry some union leaders think they're working in.


Ponderosa Pine
Red Oak
3.44% swelling after 48 hours in water
4.07% swelling after 48 hours in water
3.03% swelling after 48 hours in water
3.01% swelling after 48 hours in water
Wood treated with conventional preservative
Wood treated with conventional preservative and SHELLWAX WT

IMPORTANT TEST RESULTS:

Chart shows how wood specimens treated with new SHELLWAX WT for railroad ties resist swelling for fewer checks, fewer splits, longer life.

For every mile of track, your railroad probably spends at least $220 a year to replace split, checked and rotted ties.* Now SHELLWAX® WT can help cut this enormous tie-replacement bill by helping conventional creosote-coal tar preservative to do a better job.

Here are three ways a mixture of SHELLWAX WT and conventional preservative can give ties extra protection and extra life.

1. Less checking and splitting. A mixture of SHELLWAX WT and conventional preservative reduces the absorption of water into wood that causes checking and splitting. (See chart.) So checks and splits are far less likely to occur.

2. Less preservative loss. SHELLWAX WT reduces the loss of conventional preservative from wood due to weathering. As a result, the preservative can give your ties protection longer.

3. Improved penetration in tests. In a commercial test, the penetration of conventional preservatives into red oak ties was substantially increased in the presence of SHELLWAX WT. This improved penetration helps ties get extra protection.

Mail the coupon at right for a free report on how SHELLWAX WT can help your railroad get extra years of service from ties. Mail now to start saving sooner on maintenance.

Circle 6 on reader service card

*Estimate based on replacement of 50 ties per mile annually and on these minimum costs: wood, $1; preservative treatment 40 cents; labor $3 for each tie you replace.

GEARED TO PROGRESS RPI MEMBER

Shell Oil Company
Railroad Sales Dept.
Room 3844
50 West 50th Street
New York, N. Y. 10020

SHELL

Please send me a detailed report on how new SHELLWAX WT helps conventional preservatives to do a better job of protecting railroad ties.

NAME_____

RAILROAD_____

ADDRESS_____

CITY_____

STATE_____ ZIP_____

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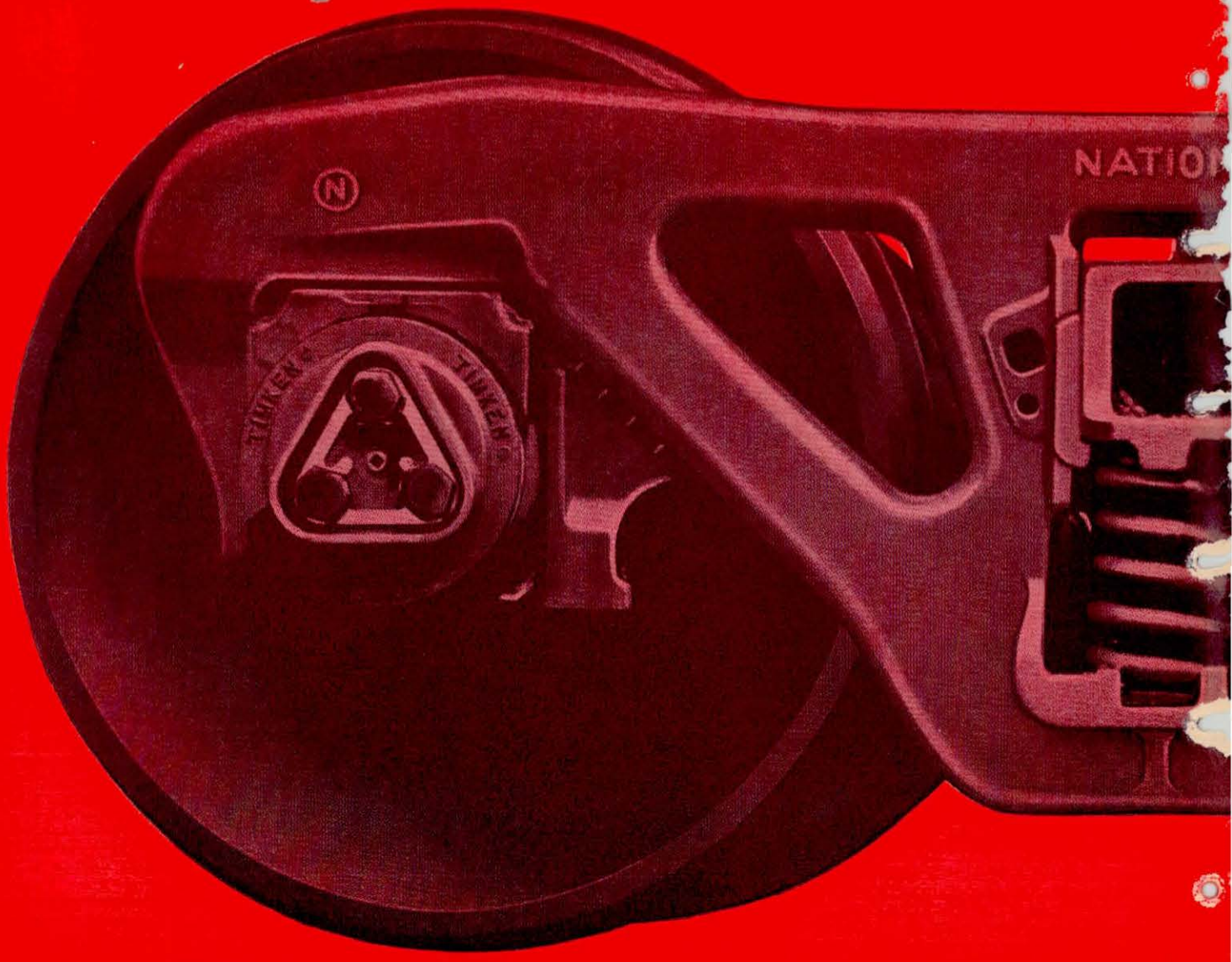
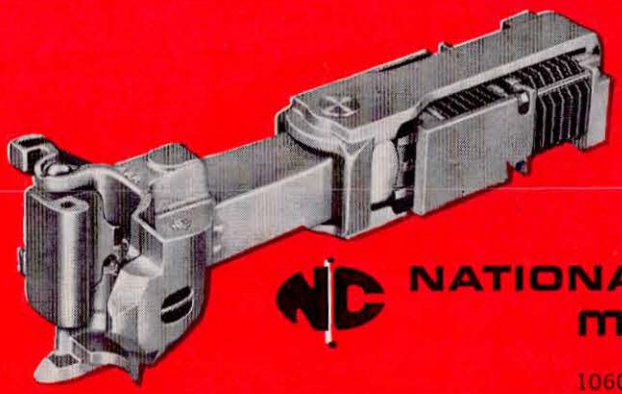
Greater Muscle for today's hustle

NATIONAL SUPER C-1 TRUCKS



As freight car capacity requirements zoom upward, National is already there to meet them with proven designs. That's why National Super C-1 Trucks were the first four-wheel units in service anywhere with 125-ton capacity cars. ■ Super C-1's have extra heft and brawn built into their side frames . . . extra muscle over-all that scoffs at today's heavier loads and greater stresses. ■ And, too, Super C-1 Trucks combine this "hustle muscle" with the special C-1 friction control design that gives a better, smoother ride at lowest possible maintenance. ■ When larger, or stronger, or more advanced design trucks are needed, you just naturally expect National to be first to fill the need. Remember that in so many areas of railroad progress, *tomorrow is taking shape at National today.*



Companion National products for the 125-ton cars . . . National MF-400A rubber draft gear — its 72,500 ft-lb capacity protects car structures; and the National AAR F Interlocking Coupler for stronger pulling power.

NATIONAL CASTINGS DIVISION
Midland-Ross Corporation

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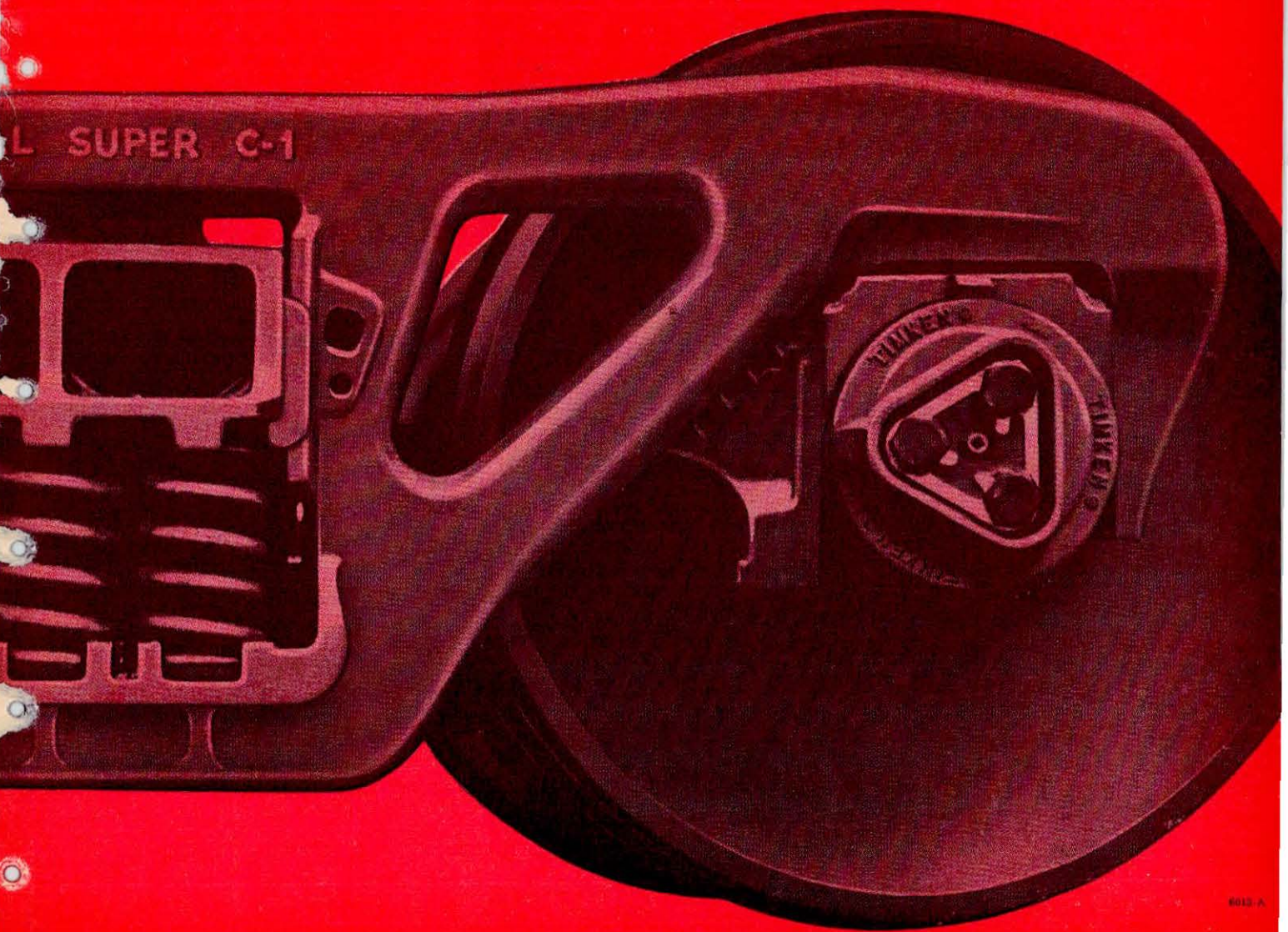
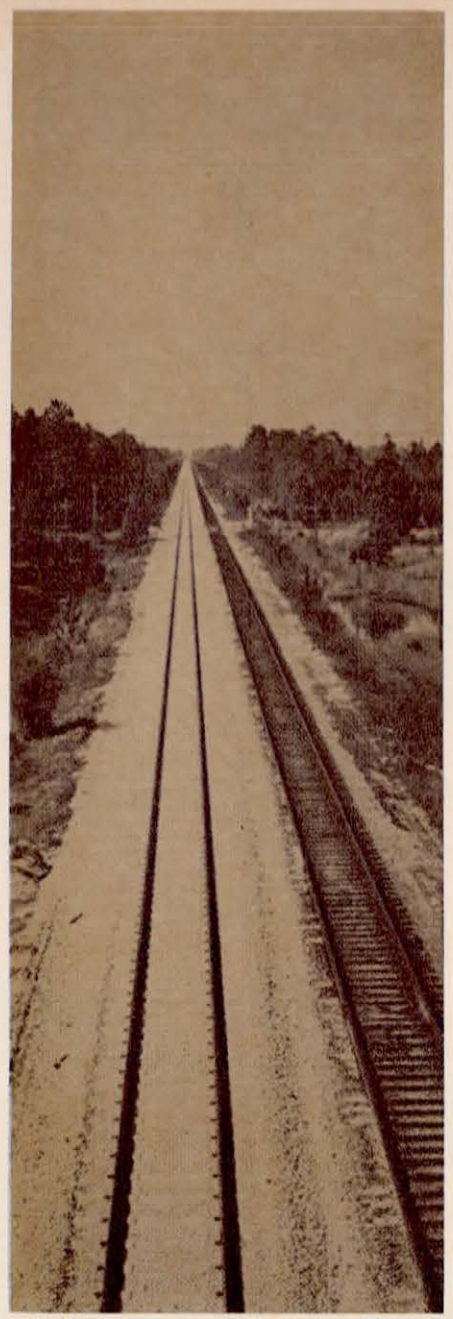




ONE OF THREE SEGMENTS of FEC main track in which continuous-welded rail laid on prestressed-concrete ties extends to the horizon. The old track at the right is to be retired.

NEW FEC STANDARD:

Main line gets welded rail on concrete ties

- **The program is begun in connection with installation of CTC.**
- **Parts of the main line are being converted to single track.**

Convinced as to the economy of using long strings of welded rail laid on prestressed-concrete ties, the Florida East Coast has adopted that form of track construction for its main track. A program is now under way to rebuild segments of track to the new standard.

● **For entire main line?** The project, if carried out over a period of years, could eventually see the road's entire main line between Jacksonville, Fla., and Miami, 366 miles, laid with this type of track construction. The prestressed-concrete ties being used are of the MR-2 design as manufactured by the American Concrete Crosstie Corp.

What makes this work of historic significance is that, heretofore, main-line installations of concrete ties in the United States have been relatively short, and are mostly for test purposes. FEC's project, which got under way last year and was extended into this year, involved three segments of main track totaling 34.3 miles of track in which concrete ties were placed out of face.

● **Why welded rail?** The road was already embarked on a long-range project involving installation of CTC throughout the length of its main line. This program permitted conversion of several portions of the main line from double-track to single-track operation.

FEC officers saw an opportunity not only to improve the over-all rail condition of its main line but also to eliminate joint-maintenance costs by installing continuous welded rail. This could be accomplished by taking up the track having the best rail, shipping the rail to a central location for cropping and welding into strings about 1,440 ft long, and relaying it. Meanwhile, traffic could use the track to be retired.

● **Why concrete ties?** The supply of suitable wood ties in the Southeast is shrinking and FEC's purchasing agent reported he could not obtain the road's normal requirements. Also, most of the wood ties available are treated softwoods which, according to FEC officers, have a limited service life. In addition, hardwoods available in the area are mostly of the lowland species that are too wet to accept the amount of preservative needed for adequate treatment, said an FEC spokesman.

On the other hand, there was assurance that prestressed-concrete ties could be produced in any quantity desired. Looking further into the advantages of concrete ties, FEC officers concluded, following a careful weighing of all factors, that they could build track on the existing roadbed paralleling the main track more economically with such ties than with wood ties.

There were other considerations, too. One was the long service life of concrete ties. FEC officers expect them to

PRESERVING TIE CENTERS. The concrete ties are shipped on flat cars on which they are spaced at 15-inch centers. A special tie picker is used for unloading the ties and placing them on the roadbed. This device picks up eight ties at a time, selecting every other one, and sets them down at 30-inch centers.

LAYING THE RAIL. After being cropped and welded, the long strings of rail are transported by a rail train to the job site and are unloaded in the intertrack area. They are then lined over onto the ties and fastened to them with clips, bolts and nuts.

WOOD TIES ARE RECOVERED. After the rail has been removed and shipped to a central location for cropping and welding, the wood ties are rooted out of the roadbed, loaded into cars and shipped to a wood-preserving plant where the usable ties are retreated for making tie renewals.

The old makes way for the new

ROADBED IS PREPARED. A motor grader is used to smooth the roadbed and form windrows of the existing ballast at the sides. The ballast is clean and in good condition, being comprised of ojus rock, which is native to southern Florida.

last 50 years, practically eliminating tie renewals in these areas for that period. Also, the new ties will be uniformly spaced (at 30 inches), so that tampers with automatic indexing equipment can be used, thus increasing tamper production. In the future, the road expects that the tampers will, for the most part, have to raise track only a minimum amount since there will be no tie renewals. It is also anticipated that the surfacing cycle can be extended from the present 5 years to possibly 10 years.

The plan is to install the concrete tie-welded rail first in territories where CTC is being installed. Later, the work may be extended to other territories where CTC has been or will be installed.

● **How track is reconstructed.** The procedure, when installing a segment of the new type of track, is to route traffic over the track that will eventually be retired and then to take up the track with the better rail. The rail is shipped to a central location where it is cropped and then welded under a contract with the National Cylinder Gas Division of Chemetron Corp. After welding, it is loaded onto a rail train and transported back to the job site. The train holds 40 rail strings placed in four tiers of 10 rails each. The rails are unloaded and deposited in the intertrack area.

All usable ties are picked up by a Traxcavator equipped with a tie-loading fork, loaded onto cars and shipped to a plant of the Southern Wood Preserving Co. at Baldwin, Fla., where they are retreated. They are then shipped to points on wood-tie territory for making renewals. With the track removed, the roadbed is smoothed by a motor grader.

● **How ties are spaced.** The next step is placing the concrete ties. The FEC takes several measures to insure placement at 30-inch centers. These measures start at the tie-fabrication plant at Jacksonville where the American Concrete Crosstie Corp. has set up a plant on the FEC to eliminate off-line freight charges and to reduce the haul.

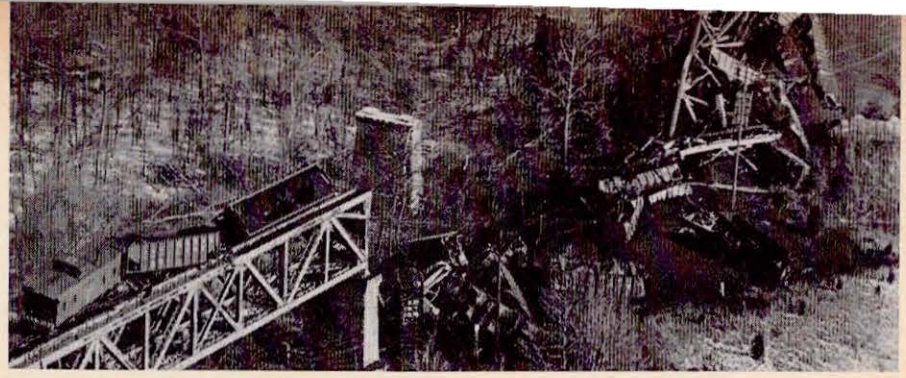
The ties are loaded on flatcars in eight layers of 32 ties each and are spaced in the layers at 15-inch centers. The ties are held to these centers by metal straps similar to those used on open-deck bridges for holding bridge ties at specified centers.

The prestressed-concrete ties are produced as they are needed for the progress of the track reconstruction. The plant operates 10 work shifts per week and produces 240 ties each shift. Generally, when five cars have been loaded, they are taken to the job site and unloaded.

The FEC built special devices for unloading the ties by a crane and for preserving the exact tie centers. One device is what the road calls a tie picker. This is a metal frame having eight hooks at 30-inch centers that fit over every other tie on the loaded car. The crane lifts the tie picker with eight ties and sets them on the roadbed. Men on the ground place two other devices that insure that the 30-inch centers will be preserved between the last tie on the roadbed and the first one on the tie picker. The men also have a template rod for positioning ties at the exact distance desired from the other track.

● **Track restored to service.** With the ties in place, the welded rail is lined over onto the ties and track fastenings are applied. The latter include tie pads, clips, bolts and nuts.

Following this operation, a Ballast Regulator is used to pull the ballast windrowed by the motor grader to the ends of the ties. A spread of fresh ballast is unloaded and the track is raised about two inches. The track is then tamped and the alignment refined, after which traffic is restored for normal 60-mph operation and the other track is removed. ■



SCENE OF CONFUSION. Coal was scattered all over the landscape after derailed cars of L&N Extra 865 smashed the south viaduct approach to bridge No. 305. When train came to rest after the derailment, the locomotive and 17 cars had passed over the structure, two cars and the caboose remained on the south deck-truss span. Almost all of the other 33 cars were in the river bed.

How the L&N quickly rebuilt a derailment-wrecked bridge

Traffic was restored 30 days after deck-girder approach was demolished on single-track line.

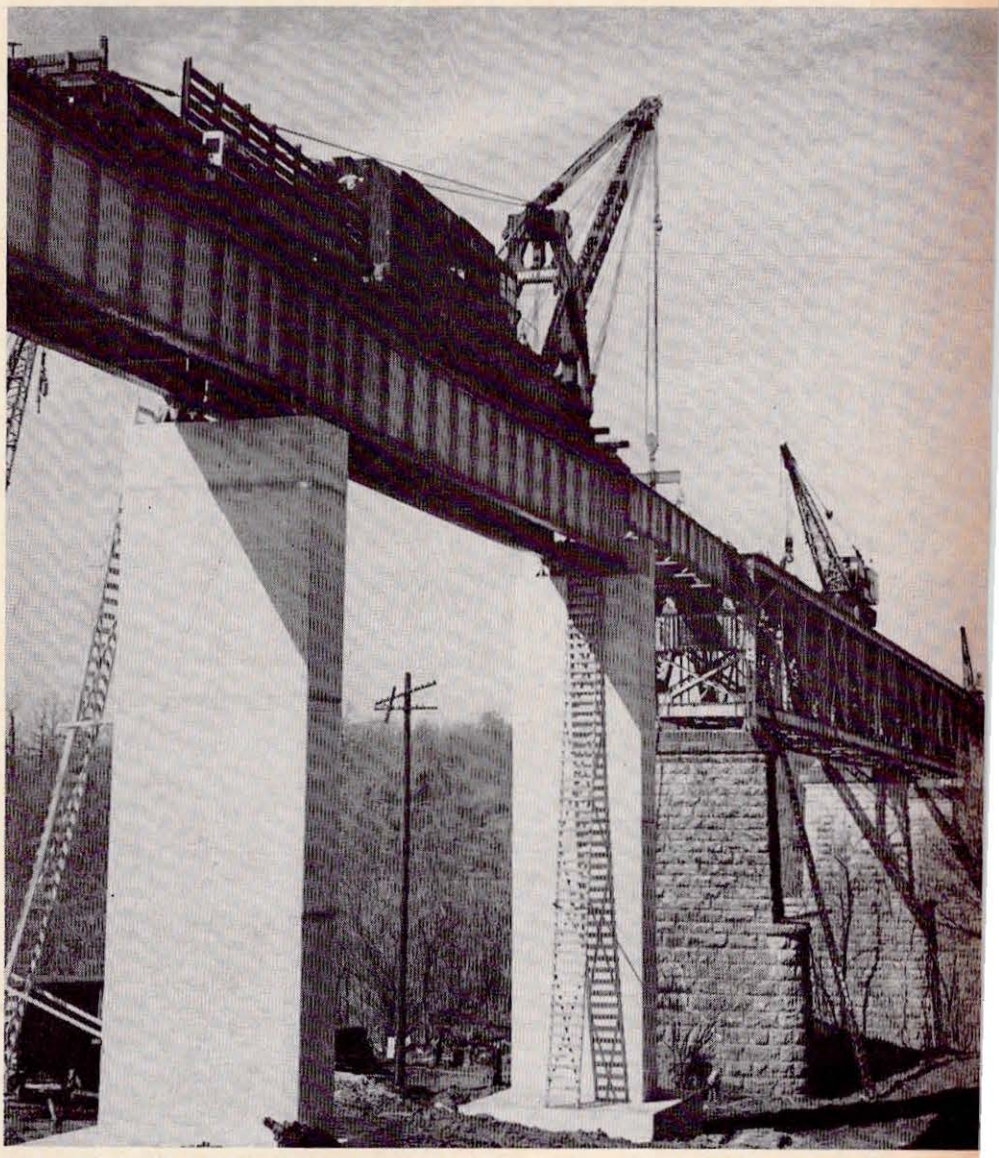
After lunch on Thursday, Jan. 27, J. B. Clark, Louisville & Nashville's chief engineer, and P. R. Eastes, the road's bridge engineer, received disquieting news. Word had been received by the dispatcher that cars derailed in a coal train north of the Red River bridge had been pulled across the bridge, knocking down several spans on the south half of the high structure.

This news was of grave concern because the bridge carries 15 to 20 passenger and freight trains daily over the road's single-track line between Evansville, Ind., and Nashville, Tenn. Also, the bridge was not a timber trestle that could readily be replaced when damaged. It was a steel bridge approximately 850 feet long and 102 feet high. The bridge, No. 305, was comprised of two deck trusses, 154 feet long, flanked on each side by a steel viaduct.

Eastes immediately started J. B. Sellers, assistant bridge engineer, and T. C. Reed, bridge inspector, driving to the bridge location near Adams, Tenn.

Clark and C. N. Wiggins, assistant general manager, left shortly afterwards for the site where they met P. H. Croft, division superintendent, and L. G. Logsdon, division engineer.

● **South approach wrecked.** They found the damage to be so extensive that it was obvious the bridge would be out of service for at least several weeks. The damage involved the entire structure. As the derailed train had progressed from north and south, it had broken all the ties on the north viaduct approach and on the two deck-truss spans. It also had damaged the upper lateral system in part of the north 154-foot span and all of the top lateral system, the stringers and



LAST OF FOUR REPLACEMENT SPANS is shown being placed. Self-propelled derrick car pushed dolly and span to the opening, where derrick raised the span. A crawler crane, working from the ground, removed the dolly fom the rails, after which span was carefully lowered into position. All four replacement spans were placed similarly in just eight days. Traffic was restored 25 days ahead of target date.

several floor-beams in the south 154-foot span. Seven steel spans in the south viaduct approach were knocked down and all parts damaged beyond further use. The steel towers of this portion of the bridge were all demolished and their footings were badly damaged or destroyed.

Extra 865 had consisted of two diesel units, 52 cars loaded with coal, and a caboose. When it came to rest after the derailment, the locomotive units and 17 cars had passed over the bridge and were on the rails south of the structure. Two cars and the caboose remained on the south deck-truss span. The other cars were in the river bed. Miraculously, no one was hurt. Cause of the derailment: Unknown.

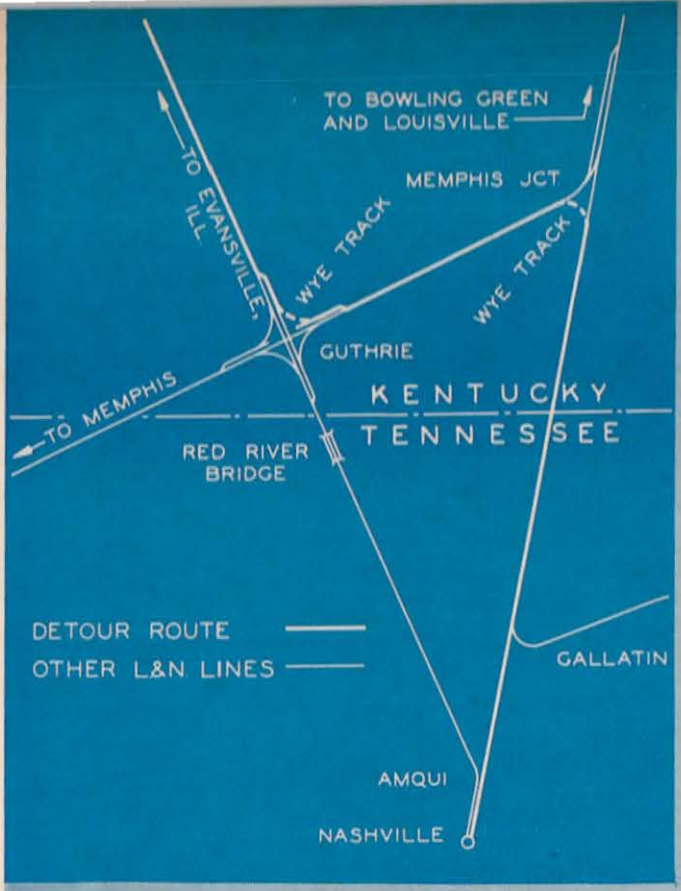
It was obvious that the work of bridge restoration would require the services of outside contractors, as well as L&N's forces. Telephone calls were made to the American Bridge Co. and to the Oman Construction Co., and representatives of these firms arrived the next morning. Meanwhile, Eastes checked the steel spans that the railroad had on hand at Louisville from recent retirements, and then proceeded to the bridge with C. S. Sanderson, vice president of operations, and A. James, assistant general manager.

● **Four suitable spans found.** A meeting of railroad officers and contractors' representatives on Friday, Jan. 28, led to the decision that the most feasible way of reconstructing the south approach would be to construct three concrete piers supported on steel H-piling on which four girder spans that were in railroad storage would be placed.

The decision to install a bridge of permanent construction right away was based on two factors. With a distance of about 100 feet from base of rail to rock, building a temporary timber bridge would have been expensive and time consuming. Anyway, it was obvious that considerable time would be available while the deck trusses were being repaired. Actually, the girders and piers were completed before repairs to the trusses had been finished.

The other factor in the decision to rebuild with permanent construction was the availability of a suitable detour route over L&N lines. It was estimated that the work contemplated would require about eight weeks. The date for restoration of service was tentatively set for March 27.

● **Restoration is started.** Even before the final decision had been made, bridge restoration work had started. Two contractors—Corum & Co., Madisonville, Ky., and Oman Construction Co., Nashville, Tenn.—started clearing the wreck-



AFTER DERAILMENT at Red River bridge, trains were detoured from Guthrie to Memphis Jct. to keep traffic moving from the Evansville line to the Louisville-Nashville line. Wye tracks were constructed at Guthrie and Memphis Jct. to keep locomotives of trains headed in right direction. The wye tracks will remain in place, because they speed up delivery of coal from western Kentucky to TVA's generating plant at Gallatin.

Track changes speed the detour

Immediately after the derailment on Jan. 37, southbound trains en route from Evansville, Ind., to Nashville, Tenn., were detoured at Guthrie, Ky., where the Louisville & Nashville's main line from Bowling Green, Ky., to Memphis, Tenn., intersects the Evansville line. From Guthrie the trains moved northeast to Memphis Junction, Ky., a point on the main line of the Louisville division, and thence south to Nashville. Northbound trains out of Nashville followed the reverse of this route. The detour is 75 miles longer than the normal route.

● **Delaying factors.** While this detour plan kept traffic moving, it entailed a great deal of delay, not only because of the longer route but also because of delays at Guthrie and Memphis Jct. At Guthrie, southbound trains had to back around a wye track on the southwest quadrant of the intersection of the lines before heading toward Memphis Jct. Then, at the latter point, because it was not possible to move directly onto the Nashville main track headed south, trains had to go north toward Bowling Green where the engines and caboose could be swapped end for end. The train then headed for Nashville.

To improve this situation, the track forces restored a wye track at Guthrie that formerly existed in the northeast quadrant of the intersection of lines. This was done by cutting an existing passing track on the Evansville line and another on the Memphis line, swinging the ends and constructing 600 feet of new track. This wye was put in service two days after the derailment and permitted trains to head onto the Memphis line.

At Memphis Jct., a new wye track was constructed. The property was surveyed and purchased, the track staked out, necessary grading performed and the track completed by noon, Feb. 7. Trains were thereby permitted to move directly from the Memphis line to the main track of the Louisville division headed southbound toward Nashville. Extra operators and other transportation-department personnel were brought to Bowling Green and Guthrie to help man these points around the clock.

● **Traffic was heavy.** This was the mode of train operation until Feb. 26 when bridge No. 305 was restored to service. During the 30-day period the bridge was out of service, this route handled 89 passenger trains and 381 freight trains, including more than 35,000 freight cars and more than 1.9 million tons of cargo.

Both wye tracks will remain in place because they serve a good purpose in expediting delivery of coal from western Kentucky to TVA's steam generating plant at Gallatin, Tenn. Prior to the derailment, the coal was routed to Nashville. After switching, the cars were hauled northward on the Louisville division main track to Gallatin. By hauling the cars of coal over the new detour route, faster service is provided.

age from under the bridge on Friday. Although a 4½-inch snow cover hampered the work, they cleared a 150-foot swath, completing this work on Sunday, using eight bulldozers. Railroad engineers then staked out the new pier locations.

The H-piles were ordered on Friday. The railroad learned that the U.S. Steel Corp. fortunately had scheduled the rolling of such shapes on that same day and the L&N order would be given preference. The H-piles were delivered on Tuesday. Meanwhile, Oman constructed an access roadway from a highway which passed over the railroad several hundred feet south of the bridge to the area under the bridge and moved in its pile-driving equipment.

Pile driving began on Wednesday. The driving of all piles for the three piers, totaling 169 piles, was completed in five days.

● **Fast concrete work.** In setting the target date for restoration of traffic over the bridge, it was estimated that the work of erecting the new girders and constructing the track could be completed eight days after completion of the piers. Hence, the speed with which the concrete work could be carried out determined the date that the bridge could be opened to traffic.

It was decided to use high-early-strength concrete with heated water and aggregates. A supplier of ready-mix concrete was found at Springfield, Tenn., about 15 miles distant, who could deliver the concrete as desired. The pouring of the three pier footings began Feb. 4 and was completed four days later. To expedite the other concrete work, the shafts of the piers were made the same dimensions throughout their height. This permitted slip forms to be used for each 16-foot increment in height and saved a great deal of time. Concrete placement was progressed simultaneously on the three piers, the last pour being made on Feb. 15.

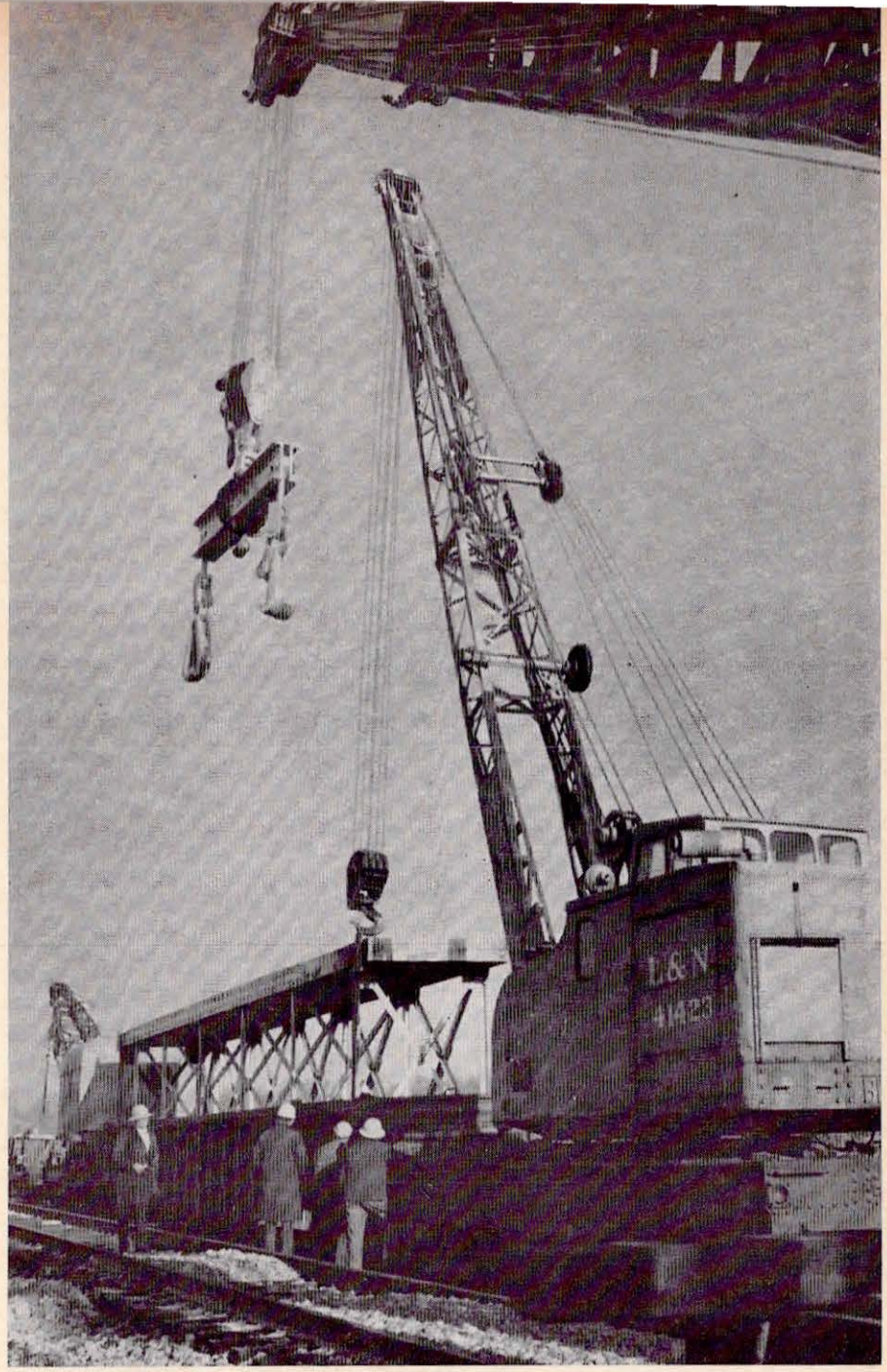
Meanwhile, the railroad built a short spur track south of bridge No. 305, on which cars carrying the four girder spans were placed. One of the spans had to be shortened to fit the opening.

● **How spans were erected.** The spans were put up by forces of the American Bridge Co. with the assistance of two L&N locomotive cranes. The latter were positioned on the spur track, one on each side of the girder span to be erected. They lifted the span off the cars and set it on a heavy-duty dolly car on the main track.

American Bridge used a heavy-duty self-propelled derrick car with its boom lowered to push forward the dolly car and span. When the dolly car had about reached the opening, outriggers were set on the derrick car and its boom was raised, lifting the span. The dolly car was then removed from the rails by a crawler crane which worked from the ground and had a long boom. The outriggers of the derrick car were then retracted, the derrick car was moved close to the bridge opening and its outriggers were again extended and set. Slowly lowering its boom, the derrick car placed the span. In this manner, all four spans were placed in eight days.

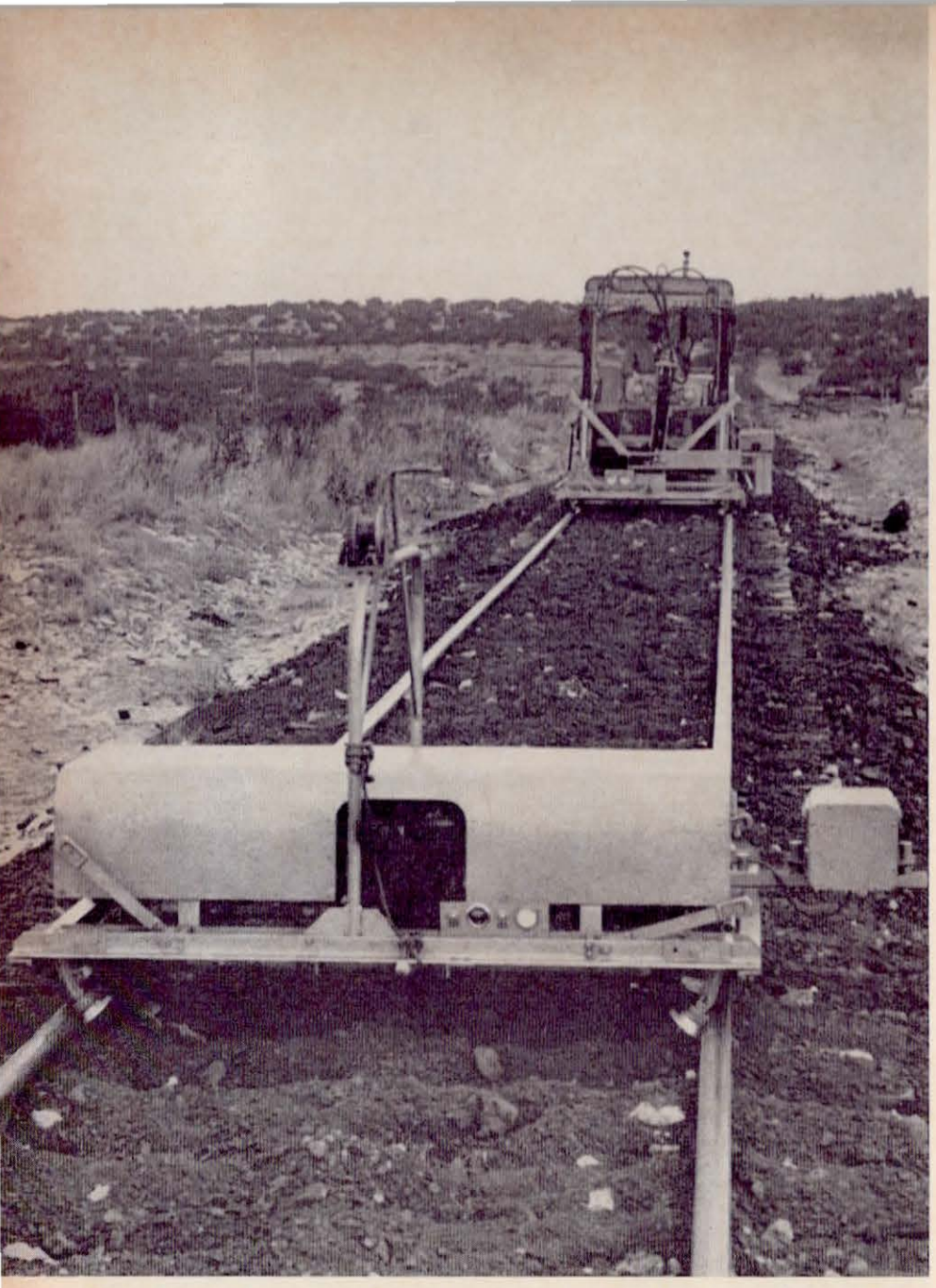
While this work was under way, the wrecked cars remaining on the deck truss were removed and American Bridge forces repaired the damage to these spans. This work included renewing damaged floorbeams, stringers and laterals. The timber deck on the entire structure was replaced by L&N bridge forces. This work was completed on Feb. 26.

● **Ahead of schedule.** The bridge was restored to service the same day, just 30 days after it was wrecked and 25 days ahead of the target date. J. E. Rains, assistant bridge engineer, was on the job during the entire rebuilding process to coordinate the work of the contractors and L&N personnel and worked with the division officers to this end. ■



A MAJOR KEY TO THE FAST JOB

Suitable replacement spans were found in an L&N storage yard. The spans were shipped to the bridge site and set on a spur track built to facilitate handling them. Two L&N locomotive cranes lifted each of the spans off the cars and set them on a heavy-duty dolly on which they could be rolled to the bridge opening.



THE LINING LIGHT uses three reference points for determining alignment. They are carried separately by three small track cars. One is on the Target car (foreground), the second is on the Indicator car (just ahead of the lining machine), and the third is on the Infrared car (towed behind the liner). Keyed light from the Target car passes through a mask on the Indicator car and is received by a receiving cell on the Infrared car.

Keyed light beams tell operator how to line track

New device, for use with Fairmont track-lining machine, tells where and how much to throw the track on tangents and curves.

A small surfacing gang making a skin lift was observed recently working on the Santa Fe with a pilot model of a new device called a Lining Light. The device is being offered by Fairmont Railway Motors, Inc., as an aid in lining track with the company's Will Track Liner.

The gang was working between Maryneal, Tex., and Tennyson on the road's freight line running between Sweetwater, Tex., and San Angelo. It was giving the track a one-inch raise on volcanic cinders. Tie condition was good but new ties were being inserted where necessary at the joints.

Equipment assigned to the gang consisted of two Jackson Track Maintainers, the Fairmont lining machine with the Lining Light and a Fairmont Ballast Maintenance Car. The lead Maintainer was equipped with a GandyDancer attachment for making the track raise. Total manpower required in surfacing and lining the track consisted of only a foreman and four machine operators. There were, in addition, six laborers who were engaged primarily in making tie renewals. Since the Lining Light is used in conjunction with the lining machine it does not require a separate operator.

The Lining Light is for use on both tangents and curves. On tangents it provides a reference line and means for indicating to the liner operator the amount and direction of any required throw. On curves it is used as an instrument to facilitate measurement of the mid-ordinates. Then, during the lining work, the device becomes a helpful aid in making the necessary throws.

● **Uses three cars.** The reference line provided by the Lining Light is in the form of a beam of keyed or coded light. Light of this type was selected to preclude interference from any form of extraneous light. The beam is projected backward from the forward car, called the Target car, to a dual-element infrared cell on a car in the rear. This car is called the Infrared car. On an intermediate car, called the Indicator car, there is a mask with a narrow vertical slot through which the light beam passes. The Indicator car is placed directly in front of the lining machine.

When working on tangent track the light received by the infrared cell on the rear car causes a scale on the Indicator car to indicate the direction and amount of the throw required to bring the track into line. On curves, the scale is first used to measure the mid-ordinates and, finally, to show when the track has been thrown to obtain the revised mid-ordinates.

The Indicator car is connected to the lining machine so as to isolate the

(Continued on page 27)

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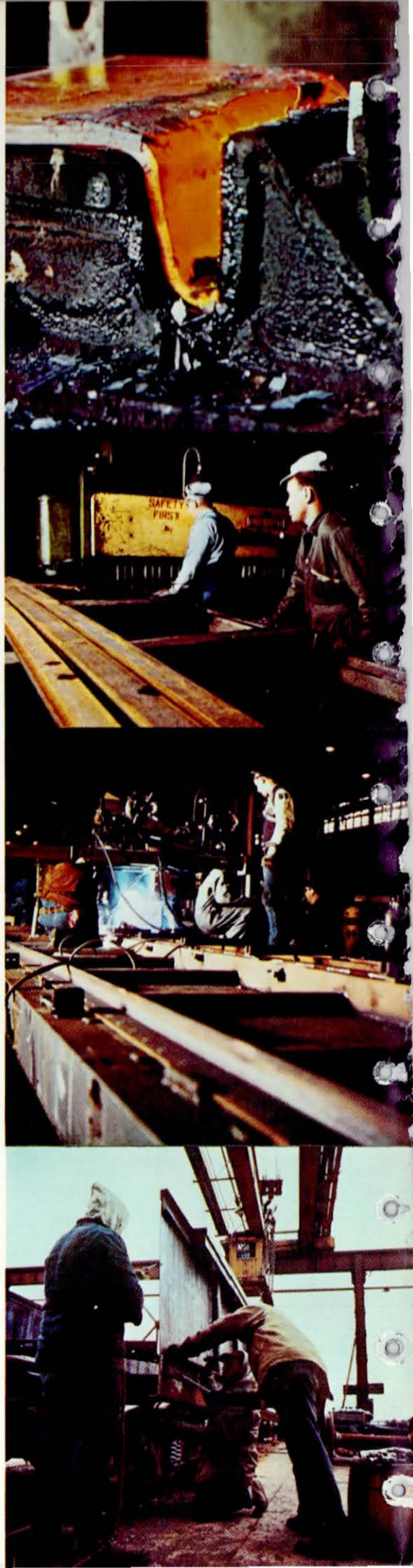

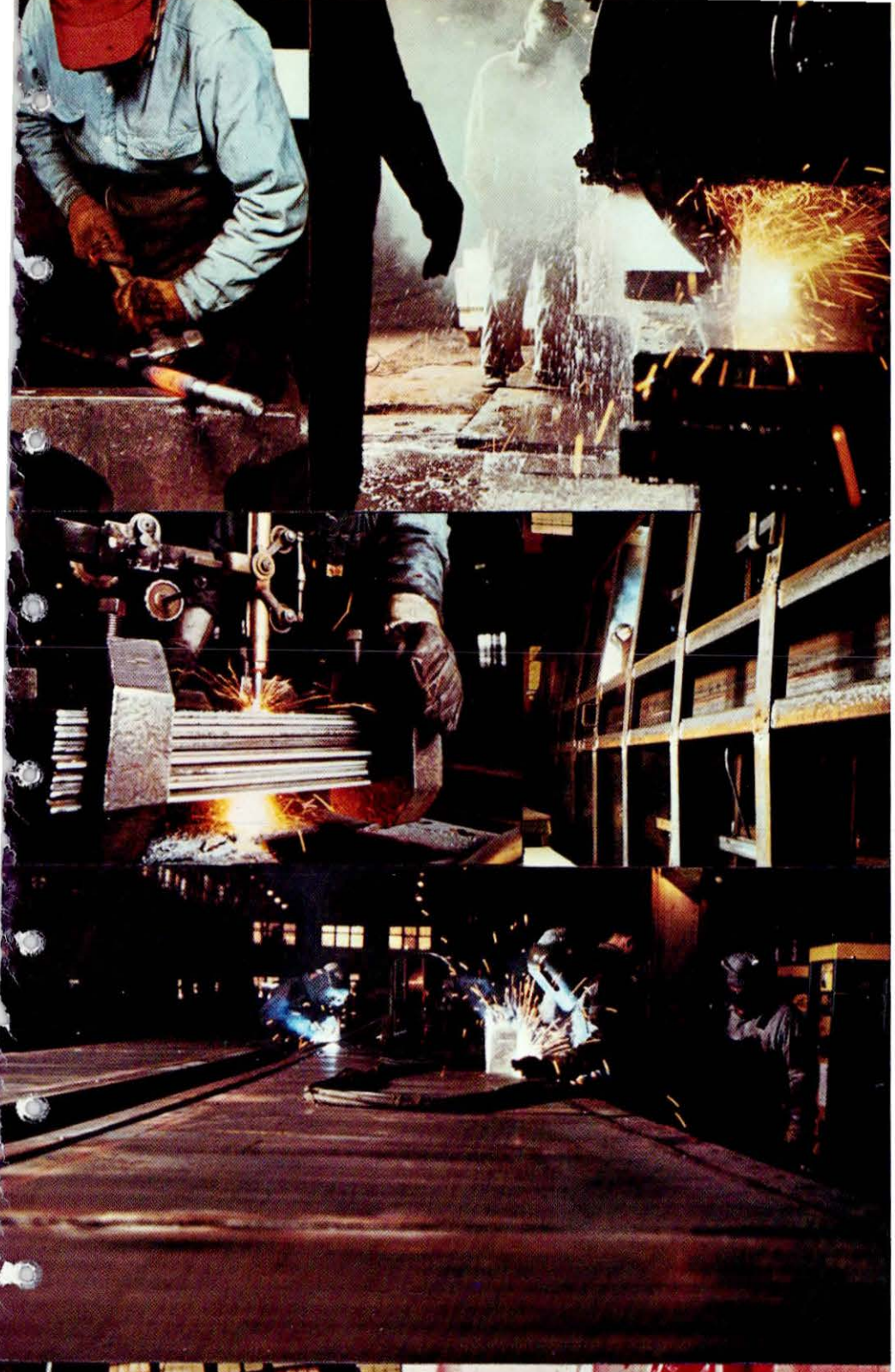

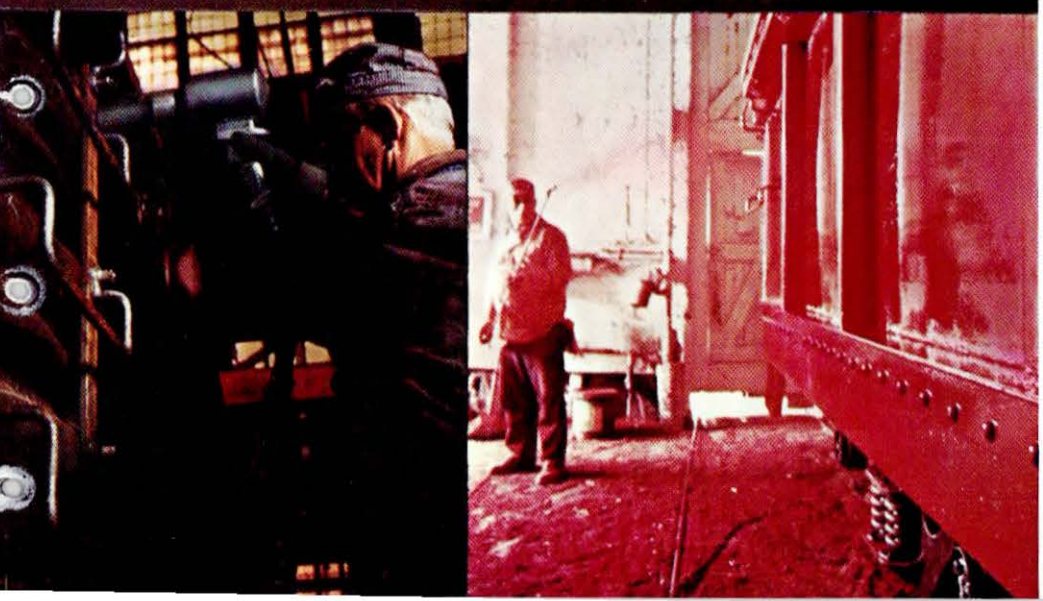

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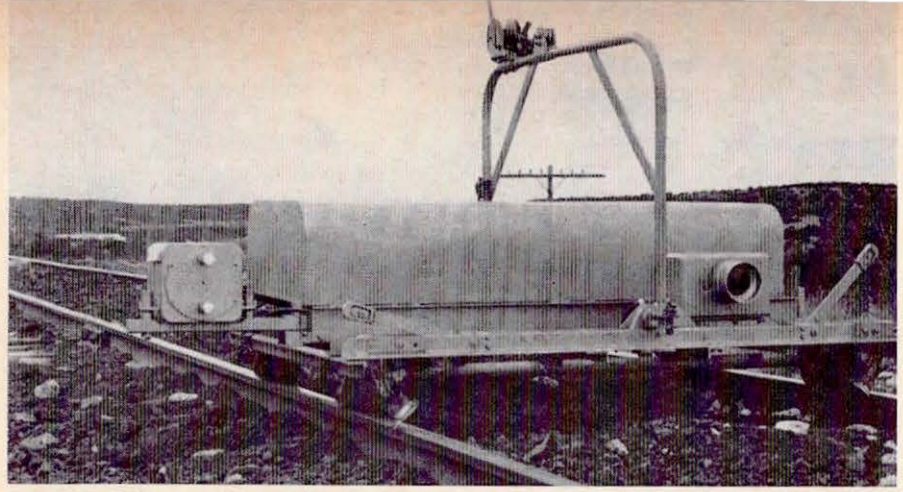
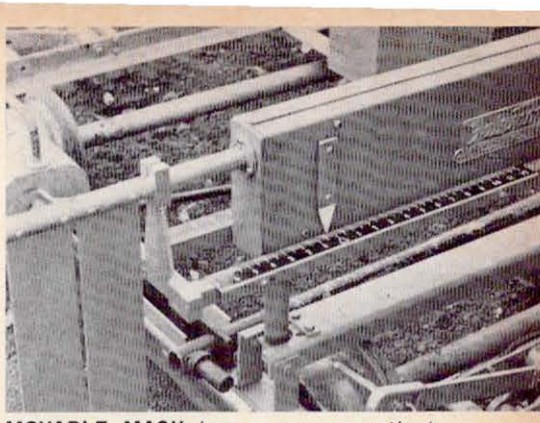
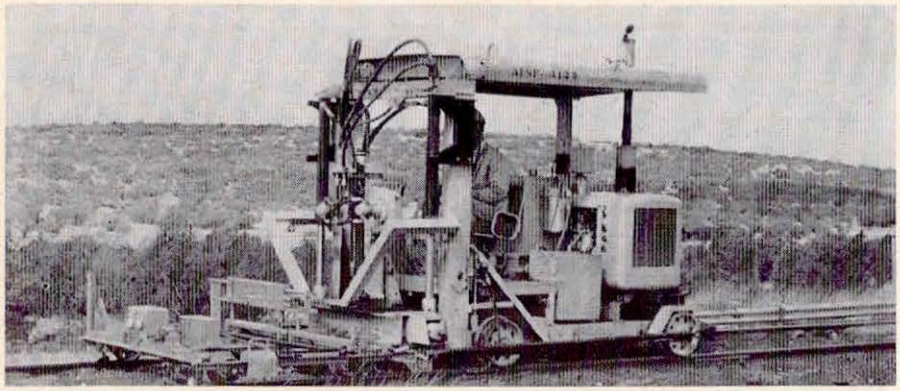


TARGET CAR, a self-propelled unit, carries a two-lamp keyed-light sending unit (left) that furnishes the reference beam for the lining. It also carries an infrared cell (right) for receiving the remote-controlled signals for moving the car away from or toward the liner.

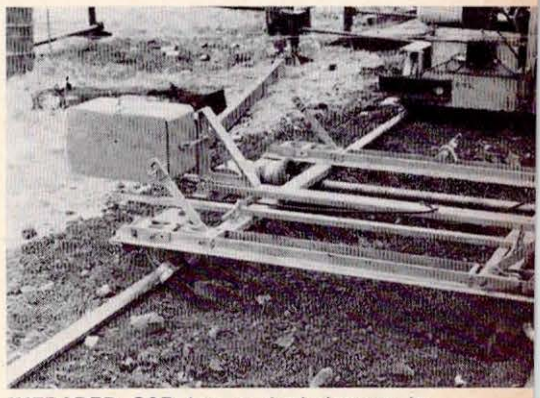


MOVABLE MASK has a narrow vertical slot through which the reference light beam must pass. A servo motor shifts the mask and scales until the slot is centered on the reference beam. The scales show the operator how much to throw the track.

How the light beam helps the track-lining operation



INDICATOR CAR carries two keyed-light sending units for controlling the travel of the Target car and a movable mask and scales for determining the middle ordinates. It is so connected to the liner that the indicator is isolated from the movement of the lining machine when the track is shifted.



INFRARED CAR has a dual-element infrared cell projecting beyond the line rail for receiving the keyed-light beam from the Target car.

indicating mechanism from the movement of the lining machine when track is being shifted. The Infrared car is coupled behind the liner by a drawbar of such length that the distance from the mask on the Indicator car to the receiving cell on the Infrared car is 31 feet.

● **Operator controls travel.** When working on curves the Target car is pushed ahead of the Indicator car by a drawbar. When working on tangent track it is free to move ahead under its own power but is remotely controlled by the lining-machine operator. In these circumstances the Target car may be positioned as much as 1,000 feet ahead of the lining machine.

When the equipment is arranged for working on curves, the light source on the Target car is 31 feet from the mask on the Indicator car. The distance from the mask to the receiving cell on the Infrared car is also 31 feet. This places the mask in the middle of a 62-foot chord. The scale on the Indicator car is graduated in inches and tenths of inches. Hence, since the middle ordinate of a 62-foot chord, expressed in inches, is equivalent to the curvature expressed in degrees, the scale also indicates the degree of curvature. In other words, a reading of one inch on the indicator scale means a one-degree curve, a reading of two inches means a two-degree curve.

Remote control of the Target car is achieved by means of a keyed-light beam projected from the Indicator car. The beam is amplified and coded electronically to operate relays that determine the direction of travel. The direction of movement of the Target car is under control of the lining-machine operator who, by using a switch, can cause the car to go away from or come toward the liner.

● **Car cannot get away.** When under remote control, the Target car is designed with a fail-safe feature. Should the Target car get beyond the range of the keyed light beam sent from the Indicator car, the Target car will stop automatically. The car will also stop if the light beam is interrupted for any reason. Another safety feature of this unit is an automatic brake which is released only when the motor of the Target car is running.

The mask on the Indicator car is movable transversely and, along with a dual scale, is shifted by a servo motor. When working on tangent track, if the slot in the mask is not in line with the keyed-light source on the Target car and the infrared receiver on the rear car, electronic components cause an electric current to flow to the servo motor which shifts the mask to the in-line position. The scales, moving in relation to a fixed pointer, indicate the amount of correction needed in the alignment.

● **How Santa Fe uses it.** As observed on the Santa Fe, the lining operations were keeping up with the tamping work on tangent track. Hence

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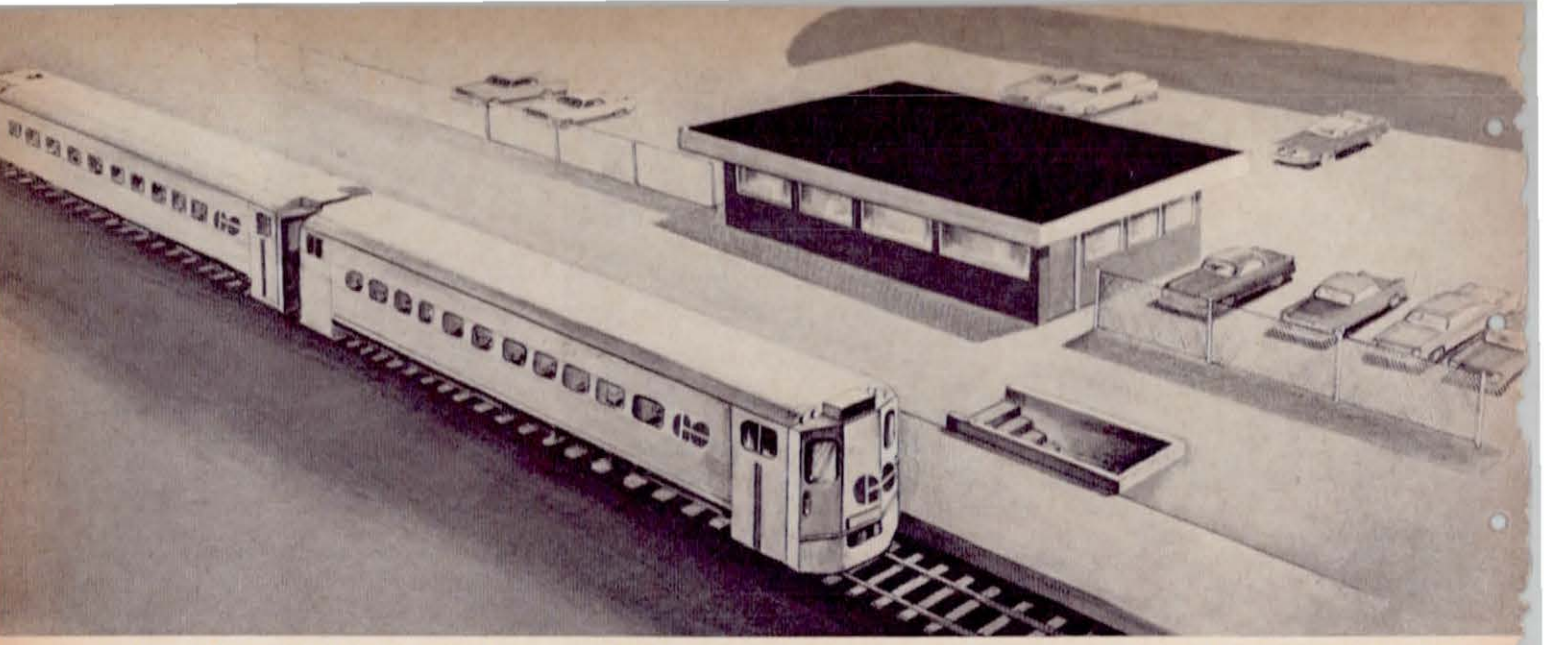
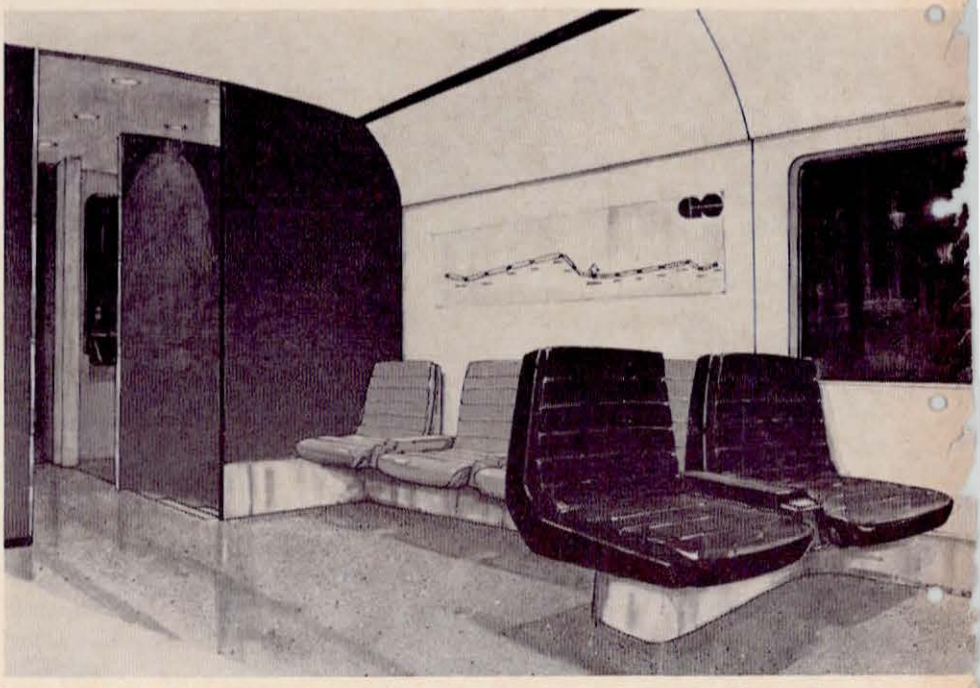


STATION DESIGN will be appraised over next few months; wide car entrances will make possible rapid loading and unloading.

Toronto commuter service shapes up

GO Transit has accepted design for cars; construction started on the first prototype station.



SEATING AND STYLING of the interiors of locomotive-hauled and self-propelled cars are intended to lure auto riders; frequency of service will be an added inducement.

GO Transit—Government of Ontario, that is—is planning to start its completely new commuter service on a 52-mile route through Toronto early in 1967. The route is the long-established Lakeshore mainline of the Canadian National; the concept of operation is completely new.

Involved will be new cars and locomotives, new stations, and signalling changes which will fit the CN line for a high-frequency suburban passenger operation. It is anticipated that the service will initially require a provincial subsidy of up to $2 million annually.

● **'Woo the auto rider.'** Government of Ontario Transit, say provincial officials, will be the first specially designed rail commuter service to operate in Canada. Others, they point out, evolved as cities grew and they use existing railway equipment and facilities. In the Toronto area, the Province is out to "woo the auto rider."

If the 600,000 residents of the burgeoning bedroom suburbs east and west of Metropolitan Toronto take to the new service, there could be a substantial saving on highway construction. Premier John Robarts told the Ontario Parliament that the estimated 15,000 daily riders of the projected trains would, if they were to commute by private automobile, require the building of four additional freeway lanes. If all those the new line will be capable of carrying—up to 12,000 per hour—were to drive during rush hours, ten new lanes would be needed.

● **$9.3-million expenditure.** In view of today's land acquisition and highway building costs, the $9.3-million capital expenditure plus annual subsidy looks very attractive to the government. The new operation is the result of work by the Metropolitan Toronto and Region Transportation Study, organized by provincial and metropolitan governments and headed by C. S. MacNaughton, Ontario's minister of highways. If successful, it may serve as a pilot project for other lines radiating from Toronto.

Late last month MacNaughton announced acceptance of the styling for all the new rolling stock and the beginning of construction of the first station at Rogue Hill, 16 miles east of

Toronto. The station complex, he said, will cover three acres with parking for 100 autos, "kiss and ride" and feeder bus loops, ticket office and 14,000 square feet of sheltered platforms. Work on the $60,000 prototype station is scheduled for early summer completion. The facility will then be examined closely to insure that it meets all operating needs and requirements for passenger comfort and convenience.

● **CN operation.** Operating agency for the new service will be the Canadian National. CN officers point out that construction of Toronto Yard and the bypass line around the city to reach this yard have cut traffic over the Lakeshore line so that the commuter service is possible. CN surveyed its line, advising on trackwork and signal system changes which would be necessary. CN designers also worked with the carbuilder, Hawker Siddeley Canada, on exterior and interior design of the cars.

It is planned to operate peak-hour service on 20-minute headway, with hourly intervals at other times. This morning-to-midnight service will be over the 41-mile stretch from the eastern terminal at Dunbarton to Oakville, with Toronto Union Station at about the midpoint. Some rush hour trains are to run 11 miles further west to Burlington.

● **Eight diesels, 49 cars.** Forty cars, equipped for push-pull operation, will be handled by eight 3,000-hp General Motors locomotives. Each locomotive will have an auxiliary 790-hp diesel-electric generating set for train lighting, heating and air-conditioning. Nine cars are to be self-propelled—seven having a single set of controls and two with controls at both ends for possible use as single units.

All the cars, self-propelled and locomotive hauled, will be of the same basic aluminum and alloy-steel construction; all will have the same external appearance and interior arrangement. Length will be 85 feet; the unpowered cars will weigh 65,000 pounds. A 330-hp Rolls Royce traction diesel, torque converter, axle drive, and GM diesel for auxiliary power—all underfloor mounted—will add 25,000 pounds to each self-propelled car.

The extra-wide 4½-ft vestibules with their powered doors are to minimize station delays by making possible the loading of every car to its seating capacity in one minute.

Special bucket seats for 94 passengers will be a major feature of each auto-competitive interior. "We have deliberately sacrificed greater seating capacity to dispel any feeling of being cramped," MacNaughton explains. Cars will have Injectaire air conditioning and wide vision windows. All rolling stock is to be delivered this year. ■

LUTHER MILLER

AS THE EDITOR SEES IT...

THE ADMEN, GOD BLESS 'EM—The more or less official marching song of the Association of Railroad Advertising Managers ends with the line, "Times are tough, but we're not sad men, it's the norm for railroad admen." Times may, indeed, be tough, but a less sad group can hardly be imagined than that which gathered at Denver's Brown Palace Hotel last week for ARAM's 42nd annual meeting.

One thing emerged clearly to the not-so-casual observer of the proceedings at Denver: The railroads have, as never before, an exciting story to tell—and within the ranks of ARAM they have an uncommonly skilled and dedicated band of men who are determined to tell it, come hell, high water or shrinking budgets.

Their work is cut out for them. In 1964, the last year for which comparative figures are available, 11 domestic airlines spent $64 million on advertising, or $2.30 out of every $100 of revenues. That same year, 100 railroads spent $19.3 million on advertising—20 cents out of every $100 of revenues.

But the trend is edging up, which may help explain why ad men are not such sad men, after all. Last year railroad advertising outlays climbed to $19.7 million, and four carriers spent more than $1 million apiece. They were Union Pacific ($2,912,926), Santa Fe ($2,295,529), Great Northern ($1,369,641) and Norfolk & Western ($1,152,119). Who's next in the million-dollar club? It pays to advertise—but it also costs money, even when you have such bright boys as those in ARAM stretching the dollars.

WHO CAN TOP THIS?—We would not venture to nominate the greatest railroad adman of all time. But we doubt if any adman ever quite scaled the heights achieved by an anonymous Southern Pacific practitioner of the art whose exploits were reported in the May 30, 1896, issue of the Financial Times of London.

"This energetic gentleman," reported the Times, "has climbed the Pyramids, and on the topmost stones has fastened cards advertising the Sunset Route, and he has placed a similar plaster on the sun-smitten forehead of the Sphinx."

CHAMPION SALESMAN—Some years ago, the railway equipment supply house of Manning, Maxwell & Moore hired a young man to peddle portable hand saws for cutting steel rail. The patriarch of the firm, Charles Moore, sent his newest employee on the road with as fine a short-course in selling as we've come across. We pass it on in the belief that it may still be valid and helpful:

"Get to know the important men in every line, find out which ones are buying and, if you can, find out which ones will be doing the buying a few years from now. Make them your friends, make them understand that you will serve them in the years to come. Make them serve you, make them respect you, and, most of all, make them like you."

The young man took this counsel to heart, and added something of his own. To make money, he figured, you've got to look like money. So he invested his life's savings in three elegantly tailored suits, a silk hat and a diamond ring.

The combination worked. The neophyte wrote so many orders for portable saws that he complained of writer's cramp. He went on to introduce the pressed-steel freight-car truck in the United States, and he topped this by selling the first commercial order in America for all steel freight cars. He wrote a single order for $100 million (38,000 freight cars for the French government) and soon thereafter bought himself a farm where, neighbors said, he milked his cows in gold-plated buckets.

The moral of this tale being that, if you want to milk your cows in gold-plated buckets, sell as James Buchanan (Diamond Jim) Brady did.

ANY SECTION
ANY TONNAGE
ANY ACCESSORY
GET RAIL FASTER from FOSTER

Ask for Foster's New Rail Catalog. A complete reference for ordering and maintaining industrial trackage.

For Rail, Pipe or Piling, call the Foster office near you.

L. B. FOSTER CO. Pittsburgh • Atlanta • Baltimore • Boston • Charlotte • Chicago • Cleveland • Columbus • Dearborn • Houston • Los Angeles • Lubbock • Memphis • Orlando Philadelphia • New York • St. Louis • St. Paul San Francisco • Seattle • Montreal • Windsor Hamilton • Winnipeg • Vancouver • Honolulu

Circle 9 on reader service card

WATCHING **WASHINGTON** WITH WALTER TAFT

TAFT

AAR HAS EQUAL-OPPORTUNITY ADVISER—The railroad industry is now well set up for compliance with the Civil Rights Act of 1964 and President Johnson's Executive Order No. 11246. To guide its member roads in the development of sound policy and right practice in this sensitive area, the AAR has organized a new advisory committee—the Committee on Equal Employment Opportunity. Its role is like that of the Association's other advisory committees, such as the Committee on Public Relations.

The Civil Rights Act proscribes discrimination in employment generally. The Presidential order supplements this with a specific condemnation of discrimination by government contractors or subcontractors. The railroads, of course, come under both proscriptions, being businesses in interstate commerce which also provide some services under contract to government departments—the Post Office, for example.

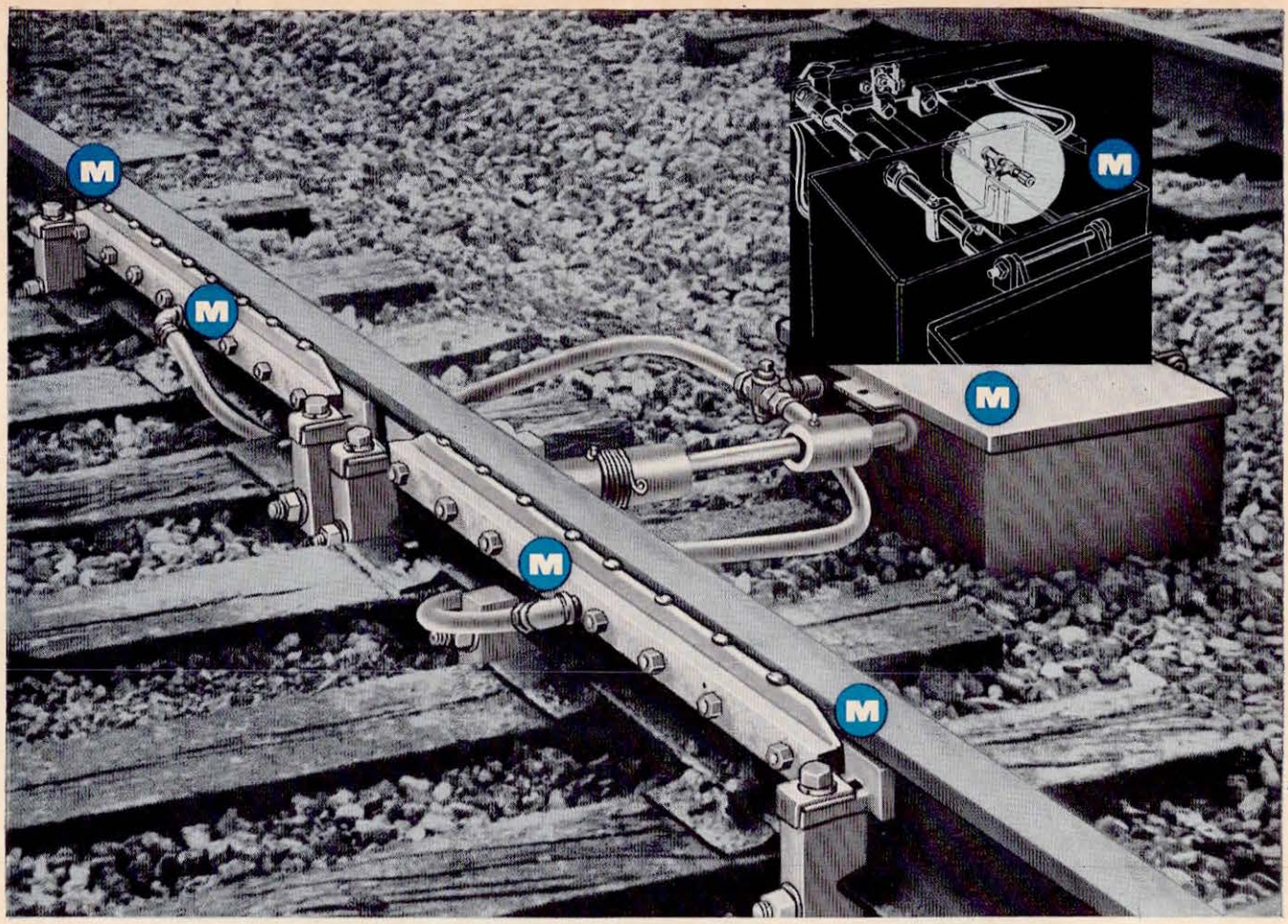
ADVISER ON POLICY—Formation of the AAR committee came in the aftermath of a series of industry meetings which pointed up the need for continuing attention to the equal-opportunity problems involved. The committee's chairman is Albert R. Beatty, assistant vice president of the AAR. Beatty was already the Association's liaison with the railroads and government agencies dealing with equal employment opportunity. The committee also has among its members a representative of each AAR member road, and a representative of the American Short Line Railroad Association.

As AAR President Daniel P. Loomis has explained, the committee will be the group which the Association calls upon to make policy determinations and to report the industry's consensus on how to handle equal-employment matters arising from time to time. The committee's business below those levels will be handled on a continuing basis by a 12-member executive committee. S. W. Seeman, the Pennsylvania's director of personnel administration, is now chairman of this executive committee. Its other members include Beatty, the AAR's assistant general solicitor, C. V. Lyon, and J. I. Collier, vice president and general counsel of the Short Line Association. The present executive committee will serve for one year. Thereafter, the full committee will elect executive committee members for one-year terms—on the regional representation basis.

CONVERSION OF VOLUNTARY PROGRAMS—The Civil Rights Act became effective nearly a year ago—on July 2, 1965. Prior to that time, the railroads generally were well along on voluntary undertakings to end discrimination in employment. To help on conversion of these voluntary programs into compliance-with-the-law programs, the AAR sponsored a series of regional conferences in the Spring of last year. Those conferences were conducted by the AAR's executive vice president and general counsel—Gregory S. Prince.

NEW REPORTING RULES A GAIN—Among the more important compliance problems confronting the railroads at the outset, was that of reports required by the Equal Employment Opportunity Commission, administrator of the Act. The Act covers all employers with 100 or more employees. EEOC's initial call for reports posed serious problems for the railroads because their business is so different from that of business generally. And it was with the latter in mind that the report forms were designed.

The railroads were able to convince EEOC that exceptions were justified for their industry lest it be subjected to higher-than-average reporting costs with no commensurate benefits to the enforcement program. And the industry thus far is the only one with such exceptional arrangements. Generally, they keep the railroads' reports to EEOC pretty much in line with personnel reports they are required to make to the ICC.



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MECO RAIL & FLANGE LUBRICATORS

"Mecolubrication" is the overwhelming choice because it leads in performance advantages and delivers them at the lowest installed and maintained cost. Meco also stands for "Meconomizer," the newest advancement in quick adjusting, pressure relief valves that automatically end messy, excess grease waste on the tracks.

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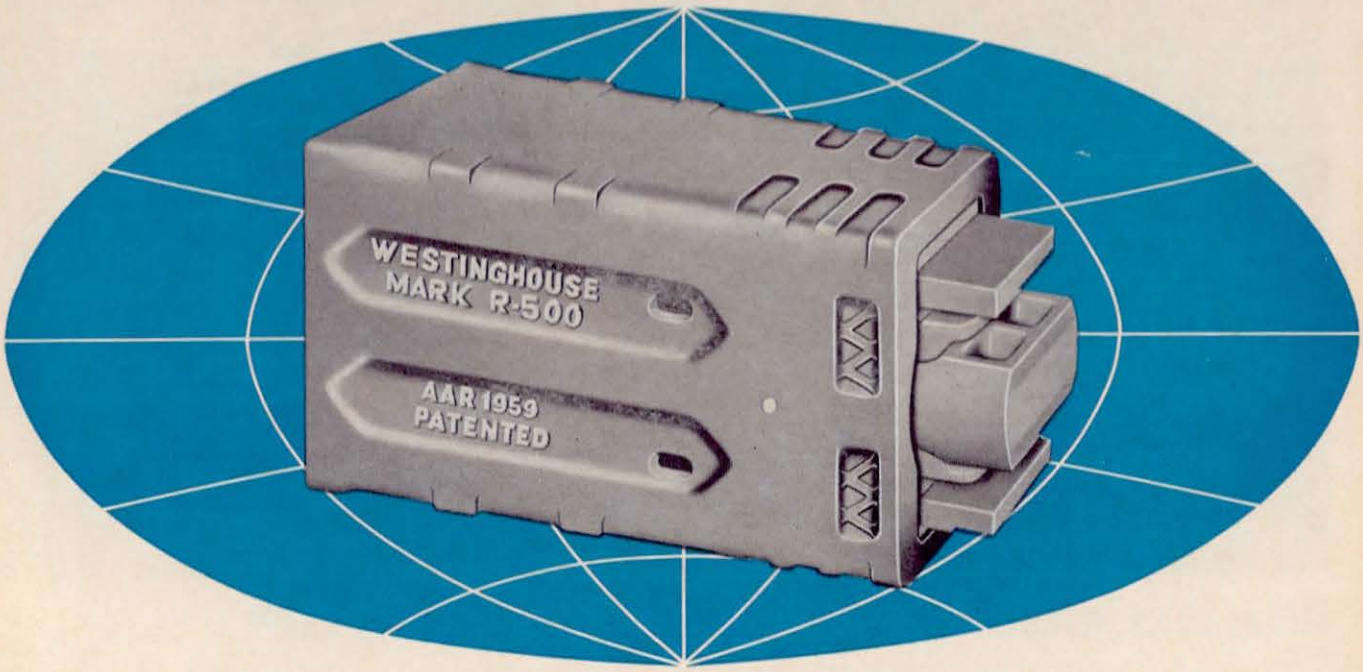
Circle 10 on reader service card

MARK R-500

Highest Capacity Rubber-Friction

DRAFT GEAR



with A.A.R. UNCONDITIONAL APPROVAL

The Westinghouse Mark R-500 Rubber-Friction Draft Gear substantially exceeds A.A.R. Specification M-901E, and is today's highest capacity rubber-friction draft gear unconditionally certified under this specification.

The Westinghouse Mark R-500 was the first rubber-friction draft gear to be awarded UNCONDITIONAL APPROVAL under Specification M-901E.

Featured in the Mark R-500 is a service-proven friction clutch which acts against a combination heavy coil steel spring and Butyl rubber inner core, assuring high capacity with low reaction. This combination reduces maintenance costs and keeps cars in revenue service that might otherwise be bad-ordered.

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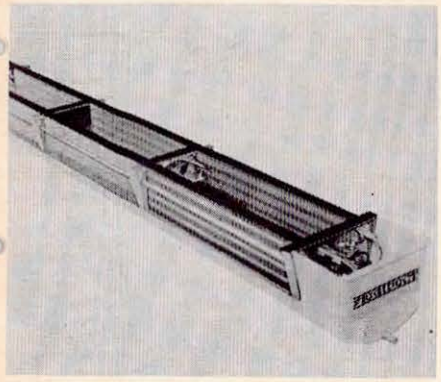
INTERNATIONAL DIVISION SAME ADDRESS

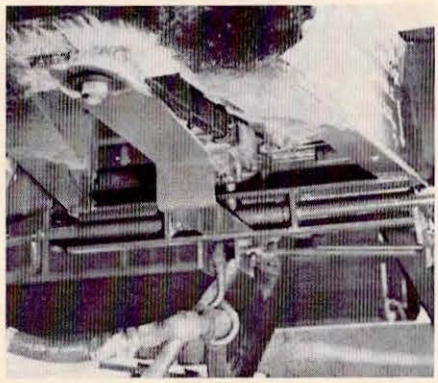
Circle 11 on reader service card

NEW **PRODUCTS** REPORT



Refrigeration Evaporator (RA-1)

Frigiduct, an air-distribution duct with cooling coils and air circulation fans packaged in a single unit, is said to produce uniform temperature control and a cross-flow air curtain which allows unit to be operated during loading. Its one-row-deep area of coil is said to reduce defrost cycles and to maintain high relative humidity. The unit is mounted lengthwise against trailer roof. Modules of 6½ and 9½ ft may be combined. *Frigiking Co.*



Coupler Centering Device (RA-2)

Damage caused by the passing of long-shank couplers in wide opening strikers is greatly reduced through the use of a leaf-spring coupler centering device which is said to keep a free coupler centered in relation to the end sill. When coupler is engaged, the device permits a draft-gear movement of at least 3 in. in either direction and a radical movement of the coupler consistent with the design of the striker. *Standard Railway Equipment Division.*

Meat Hook (RA-3)

The one-piece Clip-Lok, which replaces steel hooks in meat shipment, is made of du Pont Zytel 42 nylon resin. It is opened and one end inserted in shank area of meat. Locked, "eyes" rest upon each other, and meat is suspended through hole formed. Device meets requirements of Meat Inspection Div., Dept. of Agriculture. Each hook weighs 1 oz as compared with 48- and 24-oz weights of steel hooks. *A. Reich & Sons.*

FM Carrier System (RA-4)

The new FM carrier system increases operational flexibility by allowing remote operation of recorders, alarm systems and axle locators over distances that would not be feasible with conventional direct wire or cable.

Servo's FM system provides for either an analog or a digital mode of operation. Analog transmission is required when the FM carrier system feeds hotbox data into a recorder. However, when transmit-alarm, wheel-count, signal-switching or other on/off data are to be transmitted, digital transmission is sufficient.

The new system uses narrowband channels having a center-frequency separation of 170 cycles per second. In keeping with the frequency use generally specified in telegraph practice, the available spectrum is divided into 3-kc voice channels.

If the audio spectrum below 3 kc is occupied, the composite signal from a multichannel transmitter can be translated to a high frequency, using a standard single-sideband translator. *Servo Corporation of America*

Air-Intake Filters (RA-5)

The Cycoil HP01-V air cleaner, designed to fit limited locomotive space, is an adaptation of cylindrical Cycoil for stationary engines. The self-cleaning filter pads, under normal operating conditions, do not have to be removed for cleaning. They are automatically washed in place by a positive oil-circulating system and maintained by keeping proper oil level in sump and by changing oil at regular intervals. *American Air Filter Co.*

RAILWAY AGE
WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. George Johnson)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 33 MARKED RA-1 RA-2 RA-3 RA-4 RA-5

NAME ..... TITLE.....

COMPANY .....

ADDRESS .....

CITY ..... ZONE ..... STATE.....

6/13/66

☐ **Please send information about subscribing to Railway Age**

Freight and Passenger Car Charts

These charts are very helpful to AAR billing clerks, mechanical engineers, purchasing and stores personnel, car inspectors, write-up men, car foremen, and anyone else who needs a knowledge of car parts and their relation to each other.

The charts include a cutaway diagram of the car and a listing of important parts with arrows showing where the part is located. These charts are a part of standard training programs used on a number of major railroads.

$2 each

$10 for any six

If you are not satisfied

YOUR MONEY WILL BE REFUNDED

if you return the charts to us within 30 days

THE RAILWAY EDUCATIONAL BUREAU
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OMAHA 2, NEBRASKA

Please send the charts I have checked below. If I am not satisfied I will return the charts within 30 days for a full refund. I enclose a check or money order for $2.00 for each chart or $10.00 for any six charts.

- ☐ **Streamlined light weight passenger car (16x25 inches)**
- ☐ **Covered hopper car (20x30 inches)**
- ☐ **Box car, AAR standard 40 ft. (23x25 inches)**
- ☐ **Air conditioned chair car, 1930 design (18x35 inches)**
- ☐ **Tank Car (22x35 inches)**
- ☐ **Refrigerator Car, wood sheathed, steel underframe, 1920 design (14x20 inches)**

RA-6/13

Name _____

Address _____

City _____ **State** _____

_____ **RR** _____

PEOPLE

CANADIAN NATIONAL.—**I. U. Gallant,** employee relations officer, purchases and stores, appointed personnel officer, St. Lawrence Region, Montreal, succeeding **J. G. Stanley,** who has resigned to accept a senior post with the Canadian Government.

R. J. Wilson, previously associate labor relations officer, Great Lakes Region, Toronto, appointed labor relations officer to succeed **J. R. Mansfield,** retired.

CANADIAN PACIFIC.—**E. C. B. Macnabb** appointed assistant to the chairman and to the president. Mr. Macnabb, formerly assistant manager of traffic research, succeeds **W. J. Stenason,** newly appointed vice president, company services at Montreal (RA, May 16, p.35).

J. B. Chabot appointed assistant superintendent, Smith Falls division, Ottawa, succeeding **F. J. Koehn,** transferred. **G. G. Sayer** succeeds Mr. Chabot as assistant superintendent, Smith Falls division, Smith Falls, Ont.

C. C. Watson, manager—freight sales, Detroit, Mich., since March, appointed system manager—freight sales development, Montreal, effective June 1.

CHESAPEAKE & OHIO.—**Sanford J. Connell** appointed assistant to general sales manager, Cleveland. **James M. Duplantis** named sales representative, Chicago, to succeed **J. A. Moore,** promoted. **Bryan T. May** named district sales manager, Knoxville, Tenn., succeeding **F. L. Doherty,** promoted.

Appointments in the Merchandise Traffic Department, Detroit, Mich.: **Edward J. Klim,** assistant freight traffic manager — rates; **Charles C. Aiken** succeeds Mr. Klim as assistant general freight agent—rates; **James M. Audas** succeeds Mr. Aiken as assistant to freight traffic manager—rates.

R. P. Laird, assistant freight traffic manager —rates, Detroit, retired May 31 after 48 years service with the C&O.

COLUMBUS & GREENVILLE.—**M. K. McLemore** appointed car accountant, Columbus, Miss., to succeed **H. J. Carr,** resigned.

ERIE LACKAWANNA.—**Russell K. Downey** and **Harold J. Farley** appointed trainmasters at, respectively, Port Jervis, N.Y., and Hornell, N.Y.

C. R. Caldwell and **J. J. Dorsey** appointed general yardmasters at, respectively, Cleveland, Ohio, and Leavittsburg, Ohio.

Harold W. Kimble, assistant division engineer, Hoboken, N.J., promoted to division engineer, Scranton Division, Scranton, Pa., effective July 1, succeeding **Harry M. Ruth,** retiring after more than 46 years of service.

ILLINOIS TERMINAL.—**A. S. Taylor,** assistant to vice president—traffic, St. Louis, Mo., appointed general traffic manager there, succeeding **J. X. Andersen,** who retired May 31. **W. L. Myers,** assistant general freight agent—rates and tariffs, appointed freight traffic manager. **G. D. Wertz** named assistant freight manager; **E. L. McKenzie,** general freight agent; **K. W. Ross,** assistant general freight agent and **Victor L. Stamps,** traffic analyst.

LONG ISLAND. — **George M. Onken,** general counsel, elected to the newly created position of vice president and general counsel.

MAINE CENTRAL. — PORTLAND TERMINAL. — Three accounting department promotions followed recent appointment of **George H. Ellis** as freight traffic manager, Portland, Me.

E. C. B. Macnabb
CP

Gordon L. Wilson
MeC-PT

Clifford P. Hawkes, Jr.
MeC-PT

William T. Brownell
MeC-PT

(RA, May 30, p. 96). **Clifford P. Hawkes, Jr.,** Portland, former general accountant, appointed auditor revenue and freight claims; **William T. Brownell,** Portland, former joint facility examiner, appointed chief systems analyst; and **Gordon L. Wilson,** former assistant to systems manager, appointed joint facility examiner.

MISSOURI PACIFIC.—**John R. Osman,** appointed director of industrial engineering. He was formerly chief mechanical officer, **Rock Island.**

George S. Sowers, assistant director industrial engineering, MP, appointed construction management engineer, Navy Department, assigned to Pearl Harbor, Hawaii.

ROCK ISLAND.—**Albert F. Hatcher,** general manager—freight sales, Chicago, appointed chief traffic officer, with jurisdiction over freight sales, pricing, industrial development, real estate and freight claims. **David F. Newberry** and **Henry J. Koukal** named general sales managers, Chicago. They were formerly assistant general managers—freight sales.

The rates and divisions department has been expanded and renamed the pricing department. **Norman L. Schultz,** freight traffic manager, named acting manager—pricing, succeeding **Walter F. Carlson,** retired, as chief of the department. **Charles R. Sheets, Patrick J. Rice, Leroy J. Olsen, John E. Edwards** and **John A. Christiansen** appointed assistant managers—pricing. **Thomas A. Stoery, Harry H. Conrad, Frank H. Verchota, John C. Murphy, Richard H. Hillestad, Wayne H. Lane** and **Richard Watt** appointed regional managers—pricing. **John Hooks, Fred E. Wheaton, Chester F. Jedryczka** and **Alex A. Schuetter** named assistant regional managers. **Joseph W. Jersky** appointed assistant to manager—pricing; **John D. Sward,** commerce analyst; **Ralph C. Wiley** and **Richard D. Lyman,** pricing analysts and **Harold C. Van Gorder,** manager—traffic bureau.

E. V. Duren named assistant chief mechanical officer—car department; **H. C. Christie,** manager—engineering and design; **J. H. Whipple,** manager—research and production; **R. F. Newton,** engineer—mechanical methods; **A. C. Zagotta,** electrical engineer, all at Kansas City, Kans.

John R. Osman
MP

Albert F. Hatcher
Rock Island

J. R. Englund
KW Battery

Joseph J. Connors
North American Car

Supply Trade

J. R. Englund has been elected vice president, **KW Battery Co.**, Skokie, Ill. He was formerly vice president, **American Hard Rubber Division** of **Amerace**, Butler, N.J.

Joseph J. Connors, mideastern district manager, **North American Car Corp.**, Cleveland, has been elected a vice president.

Phil Lewis has been named sales engineer, **Stanley H. Smith & Co., Inc.**, Cleveland.

The welding plants, equipment, contracts and personnel of **Matisa Railweld Inc.** have been taken over by the **Holland Co. A. W. Faulconbridge**, president, **R. F. Murphy**, vice president of Holland, and **L. L. Eccles**, former operations manager of Matisa, will continue in these capacities with the new division to be known as the Railweld Division of Holland Co. Holland's established line of freight car truck stabilizers and equipment will become the Freight Equipment Division.

According to an announcement by **Poor & Co.**, Railway Products Division, FAIR rail anchors will begin coming off twin production lines at the new Memphis Plant on President's Island on July 1.

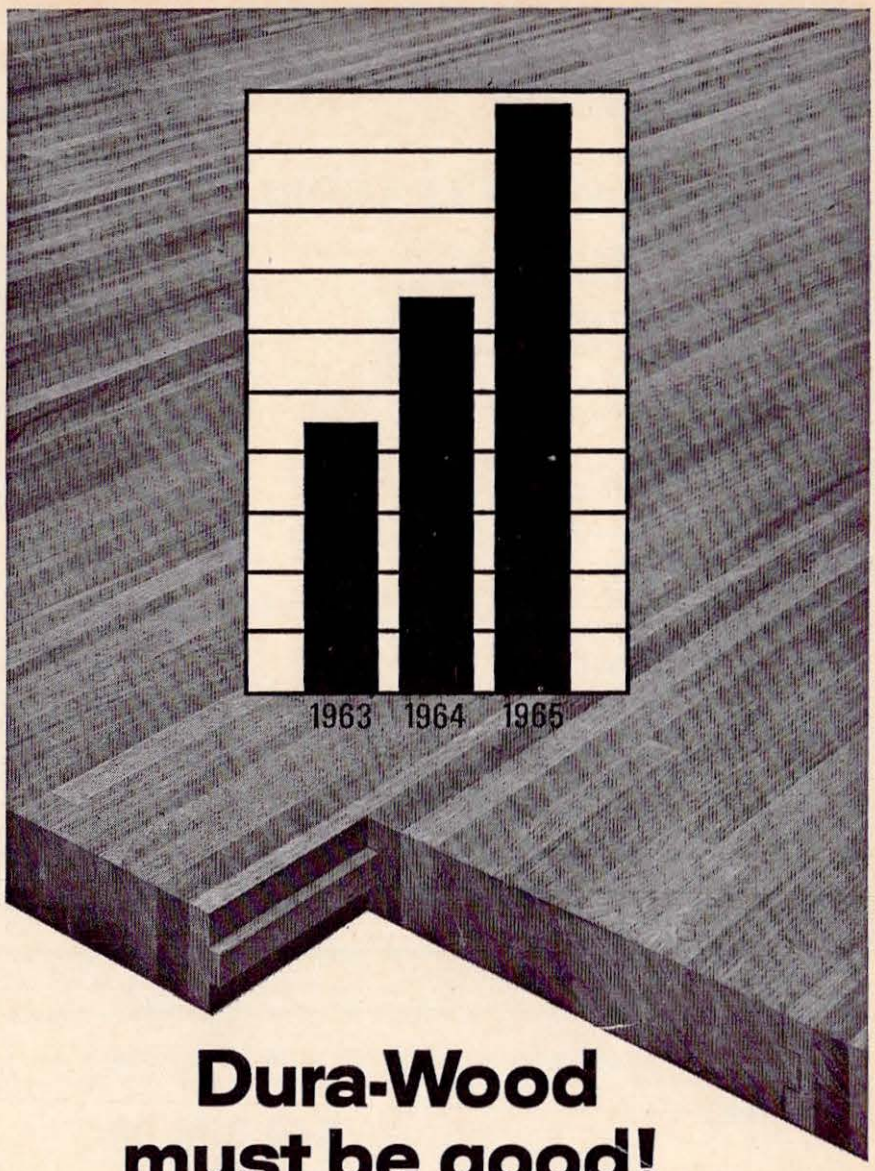
Gra-Tec Inc., manufacturers of modular fittings, has appointed **Durox Equipment Co.**, Cleveland, Ohio, as national railroad distributor.

OBITUARY

James H. Aydelott, 82, who retired in 1953 as vice president—operations and maintenance, **Association of American Railroads**, died June 4 at his home in LaGrange, Ill.

C. J. Hoover, purchasing agent, Rubber Products Division, **Dayco Corp.**, Dayton, Ohio, died May 24.

Douglas C. Lanier, district passenger agent, **Louisville & Nashville**, Mobile, Ala., died there May 24.



Dura-Wood must be good!

FRISCO
Burlington Route
MISSOURI PACIFIC LINES
WESTERN PACIFIC
GM&O

So many Class I railroads have ordered so much Dura-Wood so repeatedly that its superiority is now obvious to all. We can think of no better evidence that Dura-Wood offers the best in laminated wood flooring for freight cars.

Behind this success story is the impact of special engineering tests at Lehigh University, reported in a recent RAILWAY AGE feature. These tests proved that Dura-Wood sustains lift truck axle loads far heavier than normal 60-70,000 pound maximums. Yet strength is only one of many Dura-Wood advantages. If you want details about the others, just write.

Bruce Dura-Wood BRUCE®
LAMINATED EDGE-GRAIN
FREIGHT CAR FLOORING

A product of E. L. Bruce Co., Memphis, Tenn.,
World's largest maker of hardwood flooring.

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SPENO

BALLAST CLEANING SERVICE and RAIL GRINDING SERVICE

"Just Ask the Railroads That have used us"

FRANK SPENO RAILROAD BALLAST CLEANING Company, Inc.
306 North Cayuga Street, Ithaca, N. Y.
Clark Street, East Syracuse, N. Y.

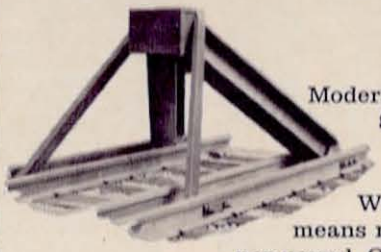
SPENO INTERNATIONAL, S. A.
20 Parc Chateau Banquet, Geneva, Switzerland
(For Operations Outside the North American Continent)

THE HOLDEN COMPANY, Limited
614 St. James Street, Montreal, P. Q., Canada
(Sales Representative For Canada)

Circle 13 on reader service card

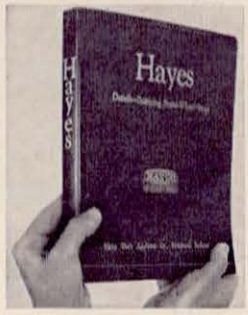
Hayes

ALL-STEEL Bumping Posts



Modern as panel track—80% pre-assembled for lowest installed cost. Welded steel design means maximum strength per pound. One of six standard Hayes Types will meet your car-stopping requirements exactly.

Free—leatherette ring-binder catalog of world's most-specified derails, bumping posts and wheel stops (including periodic supplement service). Write on letterhead.



Specialists since 1903 in side track security.

Hayes Track Appliance Co.

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(Series 63)

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June 2, 1966

Circle 17 on reader service card

(Continued from page 27)

the Target car seldom was sent more than 500 feet ahead of the liner. When the liner worked up to within a few rails of the car, the latter was again sent ahead.

A Santa Fe engineer was on hand to supervise use of the Lining Light on curves. One of his duties was to establish the beginnings and endings of the spirals of a curve and the superelevation. These were marked on the rail, together with the elevation of the outer rail at each spiral point so the tampers could be governed accordingly.

- **Measure spiral ordinates.** In preparation for lining a curve, the engineer would take the Lining Light around it to determine the average mid-ordinate. In this case, all three cars were coupled together to give a 62-foot chord. The Lining Light was then used to measure the mid-ordinates of the spirals. These were plotted to determine the revised mid-ordinate at each spiral point to eliminate any irregularities and to conform with the mean ordinate found in the body of the curve. The ordinates were marked on the rails at each spiral point. The lining operator then lined the track to these markings on the spirals and to the average mid-ordinate throughout the body of the curve.

- **Tests on three roads.** The pilot model of the Lining Light has been under test on the Santa Fe for about a year and on two other roads for a shorter time. Refinements and improvements have been made as the need for them became apparent through experience with the unit. Officers of the Santa Fe who have observed the device in action, express themselves as being satisfied with its performance. Advice from the manufacturer is that the Lining Light will soon be in production. ■

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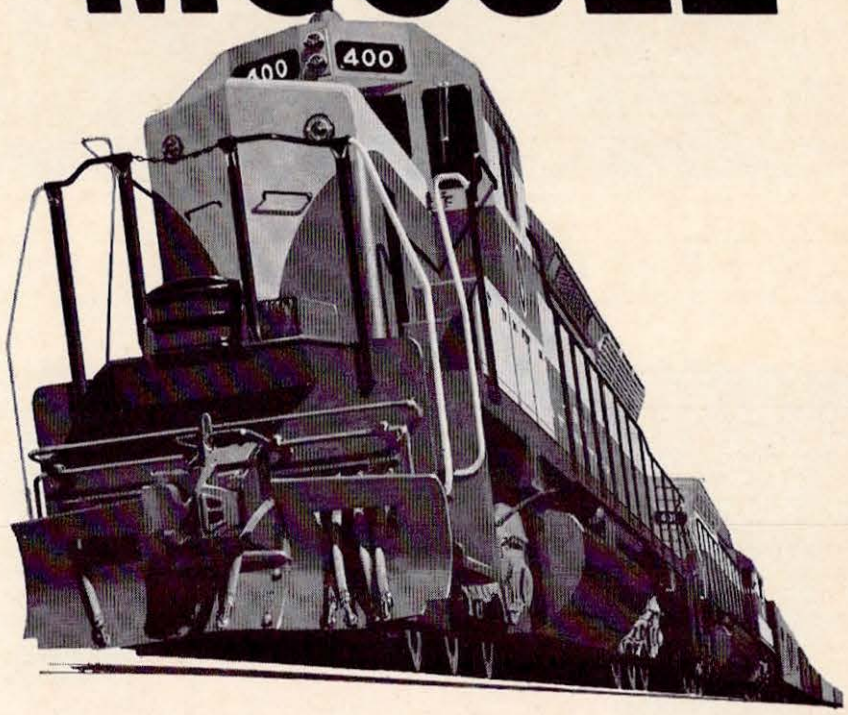

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Great Northern, that's who!

M-i-g-h-t-y impressive, these sleek new SD-45 diesels with their 20-cylinder, turbo-charged engines and 3600 eager-to-go "horses". Eight of the giants, built by Electro-Motive division of General Motors, are the *first* of their breed on any American railway. They are now speeding hot-shot transcontinental freight trains across the broad prairies and towering mountain ranges of "Great Northern Country".

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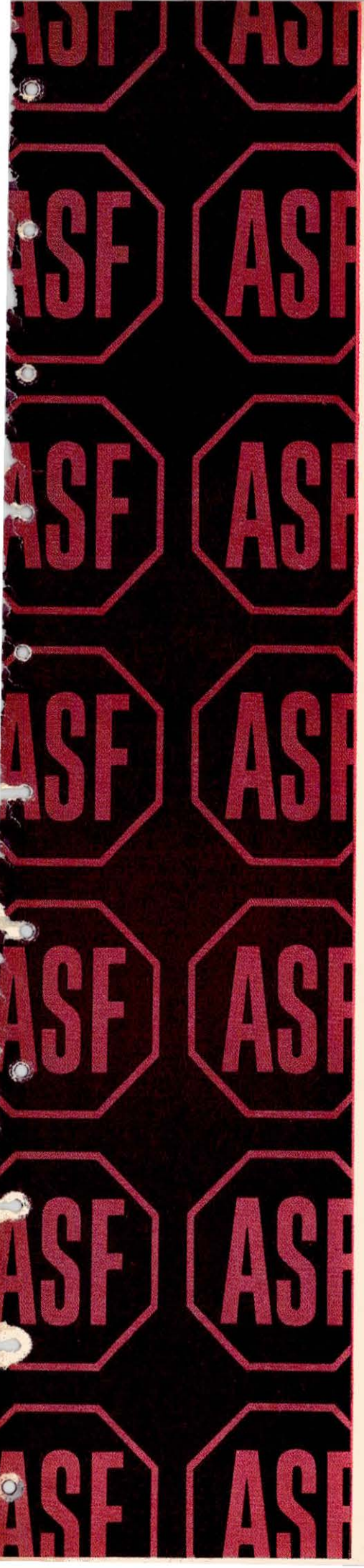

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ASF **American Steel Foundries**

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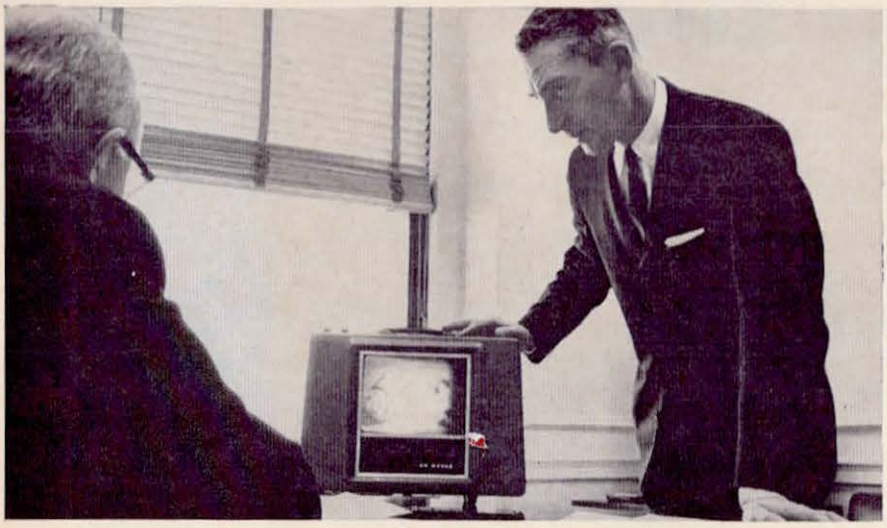
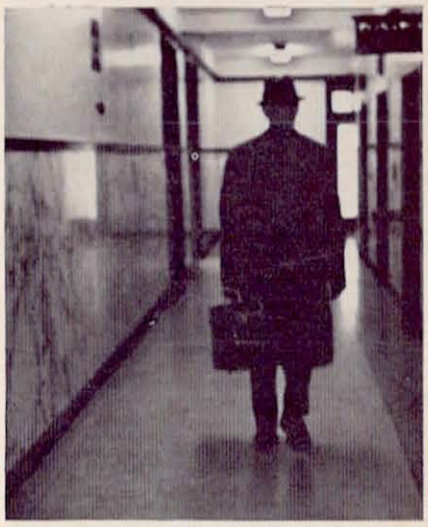
He will live, **eat,** **talk**





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Of course, ALCO builds dependability into all of their railroad products. Want to see how? Our new 10-minute sound, color, slide film presentation explains it in an interesting and factual manner.

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ALCO

ALCO PRODUCTS, INC.
Forge and Spring Division
Dept. 321-51, Latrobe, Pennsylvania

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MARKET OUTLOOK

Carloadings

Loadings of revenue freight in the holiday week ended June 4 totaled 547,692 cars, the Association of American Railroads announced on June 9. This was a decrease of 64,045 cars, or 10.5%, compared with the previous week; an increase of 17,208 cars, or 3.2%, compared with the corresponding week last year; and a decrease of 19,478 cars, or 3.4%, compared with the equivalent 1964 week. Ton-miles generated by carloadings in the week ended June 4 are estimated at 13.5 billion, an increase of 8.6% above the corresponding week of 1965, and 5.8% above the 1964 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, June 4

District	1966	1965	1964
Eastern, including Allegheny and Pocahontas ..	219,772	213,518	229,085
Southern	109,676	108,068	108,823
Total Eastern and Southern Districts	329,448	321,586	337,408
Northwestern .	80,805	75,053	82,336
Central Western	101,785	97,126	108,710
Southwestern ..	35,654	36,719	38,716
Total Western Districts	218,244	208,898	229,762
Total All Roads	547,692	530,484	567,170
Commodities:			
Grain and Grain products	43,508	40,611	41,674
Livestock	1,613	1,413	1,874
Coal	104,572	97,971	109,495
Coke	8,359	8,213	8,182
Forest Products	36,888	35,949	37,455
Ore	59,229	51,557	54,310
Merchandise l.c.l.	5,239	8,415	12,576
Miscellaneous .	288,284	286,355	301,604
June 4	547,692	530,484	567,170
May 28	611,737	600,767	561,860
May 21	609,325	598,678	579,981
May 14	611,161	593,858	576,342
May 7	602,244	591,181	566,330
Cumulative total, 22 weeks ...	12,199,486	12,045,934	11,756,787
Estimated revenue ton-miles (billions) 22 weeks ...	305.6	284.6	273.0

PIGGYBACK CAR LOADINGS.—U.S. piggyback loadings for the week ended May 28 totaled 23,303 cars, carrying 38,675 trailers, compared with 20,343 cars, carrying 33,288 trailers, in the corresponding 1965 period. Loadings for 1966 up to May 28 totaled 450,200 cars, carrying 743,803 trailers, compared with 405,005 cars, carrying 651,781 trailers, in the corresponding period of 1965.

IN CANADA—Carloadings for the seven-day period ended May 21 totaled 87,081 cars, compared with 86,105 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
May 21, 1966	87,081	25,913
May 21, 1965	80,595	25,225
Cumulative Totals		
May 21, 1966	1,535,863	520,936
May 21, 1965	1,416,738	491,473

PASSENGER CARS

► *Port Authority Trans-Hudson System.*—Westinghouse Electric was awarded the propulsion equipment contract for the 44 cars General Steel Industries is building for PATH. Westinghouse also supplied the electrical equipment for the earlier 162-car order which PATH filled for the system.

NEW FACILITIES

► *Chicago Transit Authority.*—Leased a GE-415 computer for five years from General Electric, at a cost of $530,400. CTA installed the unit in its general offices, and will use it for accounting, inventory control, engineering studies and other administrative operations.

► *Cleveland Transit System.*—Is seeking bids for grading, drainage and structural work along the four-mile Airport Rapid Transit Extension. Estimated cost of the work, which will include construction of two tunnels, a bridge and erection of all catenary, is $2.1 million. Ground breaking is expected to take place during the last week of June.

► *Norfolk & Western.*—Ordered a VELAC VR-2A automatic freight classification yard system from WABCO for its new electronically-operated, computer-controlled yard at Bellevue, O., near Cleveland. The order includes a stored digital computer, electro-pneumatic and weight responsive car retarders capable of handling 160-ton cars with 38″ wheels, fast-acting switches, high shunt track circuits, signaling, automatic and radar speed control equipment, and control consoles. N&W's new facility will consist of one master retarder feeding five group retarders controlling car movements into 40 classification tracks and two repair tracks. This initial installation is one-half of a planned future dual humping facility.

► *United Aircraft Corp.*—General Railway Signal will supply the equipment to monitor and control the operation of the high-speed turbine-driven, passenger trains that will be tested later this year on the New Haven between Providence and Boston. United Aircraft is the principal contractor for the project, which is sponsored by the U.S. Department of Commerce. The GRS system includes equipment that detects the movement of trains, and wayside equipment that will compute the proper speeds for following trains to maintain. Speed commands, sent through the rails, will be received by the train and be displayed on the operator's control console. The train can be stopped automatically if the operator does not respond as instructed.

FOREIGN

► *Mexican Government.*—A $1.75 million Alliance for Progress loan will be used to finance U.S. equipment and services needed in the construction of a microwave communications link between Nogales on the Mexican-U.S. border and Guaymas, about 240 miles to the south. Collins Radio Co. of Dallas, Tex., is expected to be the prime supplier. The loan, authorized by the Export-Import Bank of Washington, was made to Nacional Financiere, S.A., a Mexican government financing agency.

YOU OUGHT TO KNOW

Golden Spike winner: The Budd Co. last week won the Golden Spike Award at the 42d annual meeting of the Association of Railroad Advertising Managers in Denver. The award, now in its 15th consecutive year, is given to the advertiser outside the railroad industry whose advertising or promotion of its own products or services contributes to a better understanding and appreciation of railroads. Silver Spike plaques were awarded to Bethlehem Steel Corp., Aluminum Company of America, and Deere & Co. Union Tank Car Co. and Reynolds Metals Co. received merit awards.

GN gets the first SD45: First of Electro-Motive Division's 20-cylinder single-engine 3,600-hp SD45 units are going into service on Great Northern, where they'll be used in hot-shot transcontinental freight operations between the Twin Cities and the Pacific Northwest. GN was scheduled to take delivery on eight SD45s last week—and total locomotive deliveries for June will bring 20 new freight and passenger units onto the property, 14 from EMD and six from General Electric. Total cost of the June deliveries alone: About $5.2 million.

Gangewere resigns: E. P. Gangewere has resigned as chairman of the board of the Reading, President C. E. Bertrand announced following a directors meeting. Gangewere served as president of the road from 1960 to 1964.

Job shift at AAR: Richard E. Keefer, secretary-treasurer and administrative assistant to AAR President Daniel P. Loomis, was named executive assistant to the president. He continues in his post as secretary-treasurer, a job he has held since 1959.

Poor expands production: Poor & Company's Railway Products Division will have a new Memphis plant in operation July 1. The plant will supply FAIR rail anchors off twin production lines initially; will add other rail product lines at a later date.

Amsted goes Latin: Amsted Industries licensed Fhasa (Fundiciones de Hierro S.A.) of Mexico City to use its Controlled Pressure Pouring casting process to produce steel wheels for Mexico, Central and South America. Fhasa joins other licensees in Australia and South Africa in producing Amsted steel wheels for overseas customers.

E-L shows muscle: Railroads have to show versatility and carrying capacity in order to compete. Erie Lackawanna is no exception; one of its more unusual recent hauls was a shipment of 50-ton girders, moved from a steel plant in Pittsburgh to the Port of New York, for transhipment to Spain.

U.S. Freight expands shipping interests: United States Freight Co., already a substantial investor in the maritime trade ($6 million in Moore-McCormack stock), has acquired a 50% holding in Waterman Steamship, owner or operator of 37 vessels in worldwide service. As largest freight forwarder in the nation and a leading proponent of container services (RA, Mar. 28, p. 95), U.S. Freight is expected to promote the service even more heavily on an international basis. Morris Forgash, U.S. Freight president, was elected vice chairman of Waterman's board of directors.

Two corrections: The manufacturer of the 150-ton portable railroad track scale described in the May 2 issue (p.36), is the L. R. Murphy Scale Co., not Sturges & Associates. Also, the manufacturer of the PRR gantry crane at Kearny, N.J., was incorrectly identified on p. 18 of the May 30 issue. The manufacturer is the Southern Iron & Equipment Co., Chamblee, Ga.

Truck tonnage: Intercity truck tonnage in the week ended May 28 was 1.1% above that of the previous week of this year, and 4.0% ahead of the volume in the corresponding week of 1965, according to American Trucking Associations.

Current statistics

Net income	
3 mos., 1966	$172,000,000
3 mos., 1965	123,000,000
Carloadings, revenue freight	
22 wks., 1966	12,199,486
22 wks., 1965	12,045,934
Freight cars on order	
May 1, 1966	59,415
May 1, 1965	35,774
Freight cars delivered	
4 mos., 1966	29,303
4 mos., 1965	26,138
Serviceable cars	
May 1, 1966	1,410,539
May 1, 1965	1,401,391

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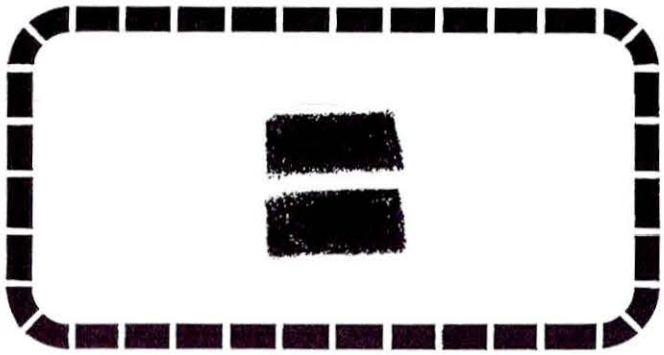

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THE ACTION PAGE

Loomis: Record years ahead—if . . .

Oracles run risks—especially when predicting the shape of future U.S. transportation. Public policies have made an unpredictable tangle of the nation's distribution facilities.

But, times are changing. Government transport policies are being reappraised. There is widespread feeling in industrial and commercial circles that the nation can hardly continue depending upon artificially-inflated distribution costs.

AAR President Daniel P. Loomis, a veteran industry leader, is well-aware of how rapidly a crystal ball can develop cracks. Yet, talking to the General Motors Traffic Conference at Warren, Mich., last week, he took aim at the future and made some projections which ought to give heart to railroad men everywhere.

Noting that transportation volume for both passengers and freight tripled while the nation's population doubled since 1939, Loomis cited the predictions of experts examining the meaning of the nation's expanding population, its mushrooming economy and its changing role in the world at large:

— Population will rise from its present 196 million to somewhere between 219 and 230 million by 1975 and to as many as 362 million people by the year 2000; nearly three-fourths of this burgeoning population will work and live in metropolitan areas by 1975—and more thereafter; the Bureau of Public Roads foresees 116 million motor vehicles in 1975; the demand for electric power will triple and the demand for coal will double by 1980, and fifty million new housing units will be needed by 1980.

Golden Age ahead

"These trends point to—indeed, demand—a turnabout toward sustained expansion, in fact, to a whole new golden age of railroad service," said the AAR chief executive. "Railroads are the one domestic carrier that can concentrate mammoth loads in limited spaces and haul these with efficiency and economy and a minimal drain on national resources."

Internally, Loomis added, railroads are proving equal to the challenges of the future. "Taking as a base the year 1961, the last of four low traffic years, railroads by the end of '65 increased their annual modernization outlays by 2.5 times, reduced their average freight charges by 8%, raised their total freight volume by 24% and boosted their rate of return on net investment from under 2% to 3 2/3%."

Currently, said Loomis, railroads may very well be working on the industry's all-time freight traffic year. "While last year saw a postwar freight traffic record set on the rails, our 1966 volume is running 7% ahead of 1965's volume—promising to surpass even the World War II peak for an all-time record."

Modernization is cited

Loomis spelled out the underpinning for the rail comeback. He cited the motive power, the revolutionary cars, the CTC, microwave, hotbox-detector systems, the automated electronic yards, the improved fixed plant, computerization and other betterments that the industry installed with more than $22 billion in capital improvements since World War II.

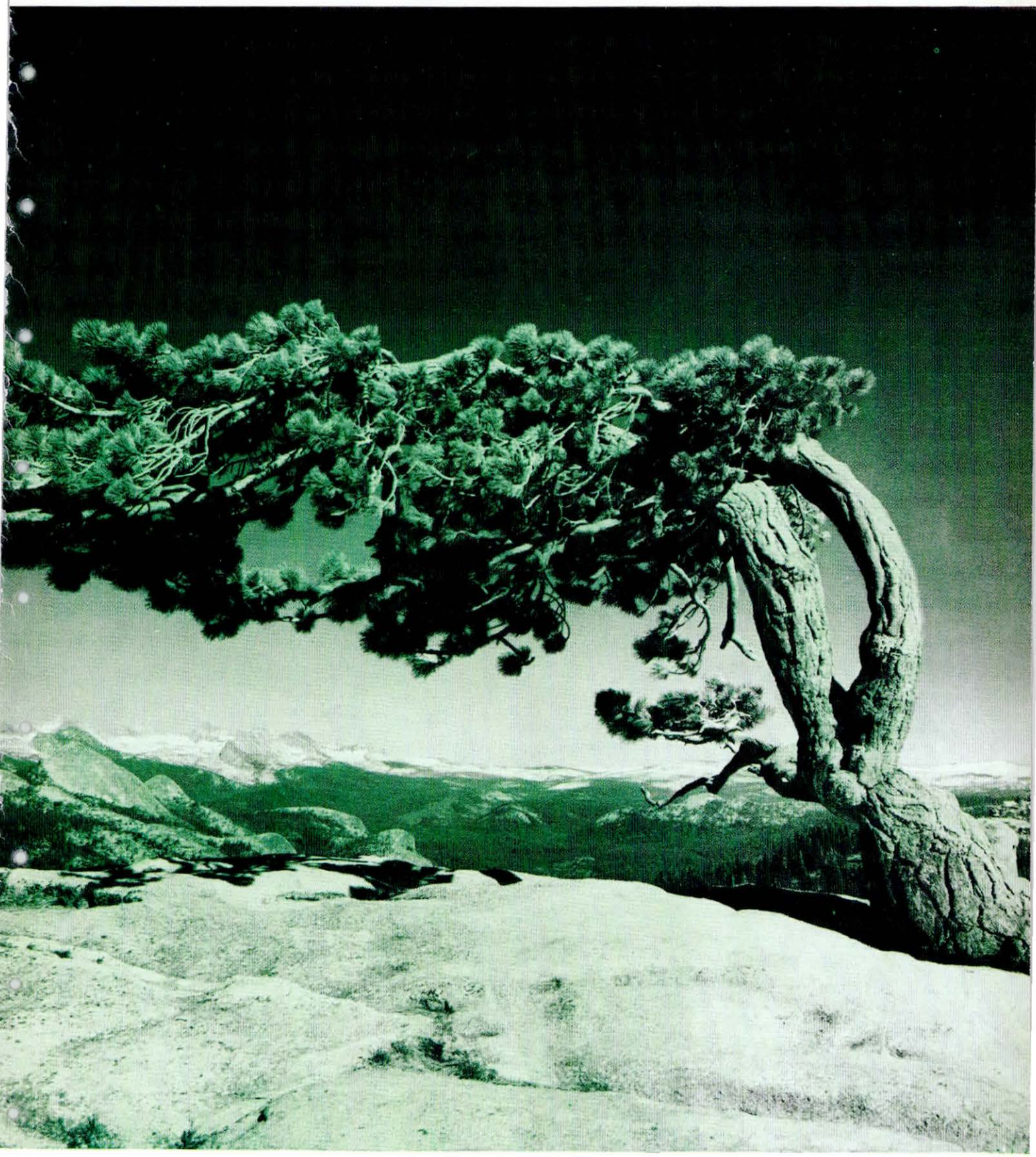
"Such internal changes are essential for national economic reasons as they are desirable for service reasons," he declared. "If rail freight volume now in the fifth year of better than a 5% annual growth average, were to go on mounting at this rate, our '61 traffic would double by 1974 and our '65 load would double by 1978. Even at a 4% annual growth, '61 volume would double by 1979."

Loomis looked for technological betterment, refinement of technique, mergers and the continuing support of shippers because of the industry's "pricing overhaul" (a 13% reduction in average ton-mile charges vs a 12% rise in prices generally), to guarantee the rail renaissance he sees ahead.

Key to everything, Loomis told his audience last week, is the reformation of public policies. "As one of America's first great industries, railroads became an early target for tight regulation and a punishing tax load. Then, in this generation, became the victim of government spending for the development of competitive road, air and water facilities. Perhaps, now that America's coming transport demands are so great and rail contributions so clearly essential, we can hope to see an end to such restrictive policies toward railroads."

This was Loomis' heartening summing-up: "Our roughest period of readjustment is behind us. Railroads are crossing the threshold into another great age of service. We face a rendezvous with destiny. We intend to keep it."

Only a few products of man or nature have retained so much character after so many years.



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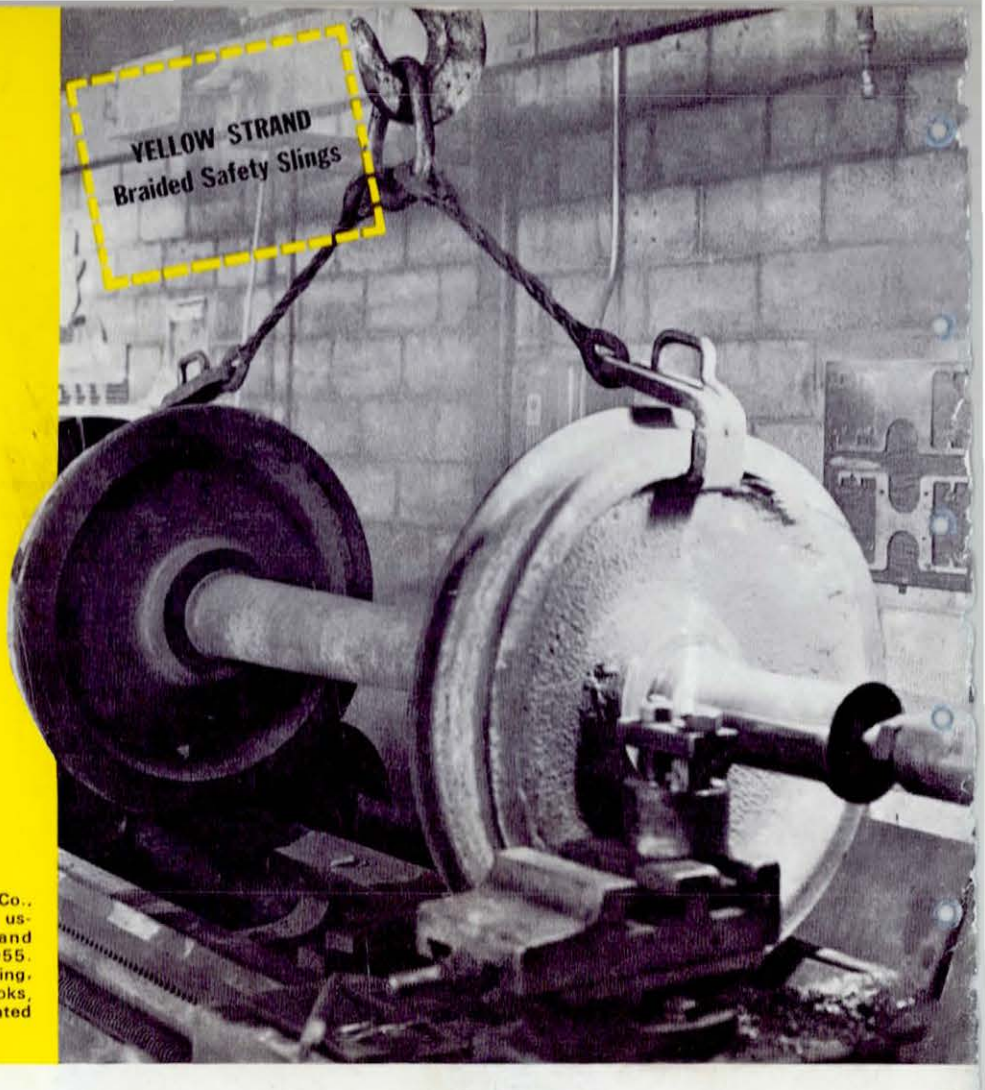

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